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ABSTRACT

The fourth meeting of the Fenno-Hungarian Conferences on Developmental Psychology had as its theme "Socialization and the Child-Rearing Practice. The conference consisted of three Symposia. The first symposium, "Results of the collaborations on the basis of the series of the Fenno-Hungarian conferences," contains the following papers; (1) "Development of gender constancy among four-year-old children in Finland and Estonia" (Soili Keskinen and Anu Leppiman); (2) "Gender identify and gender constancy in three-year-olds. A comparison of Hungarian and Finnish preschool Children" (Judit Gervai, Rita Nemeth, Soili Keskinen); (3) "Competition among Hungarian and Finnish mothers" (Pirkko Niemela); (4) "Mothers' competition through their children. A Finnish-Hungarian comparison" (Marta Fulop); (5) "Empathy and creativity" (Mirja Kalliopuska); (6) "The mother's empathy and the infant's development" (Julia Sugar Kadar); (7) "Language and thought. Comparative study on native speaker children of Hungarian versus Finnish language" (Marta Mag and Noemi Kiss); (8) "Causes of aggressive and violent behaviour in adolescence and young adulthood" (Vappu Viemero); and (9) "What are young delinquents really like? A pilot study on the self-concept" (Hedvig Katona-Sallay). The second symposium, "The social-emotional and social-cognitive development in the Finnish researches," contains the following papers: (1) "Familial influences on children's social skills" (Pirjo Polkki); (2) "Life as a single father" (Anna Raija Nummenmaa); (3) "Fear in children's lives. Study of 5-6-year-old children's fears and coping strategies" (Tiina Kirmanen and Anja Riitta Lahikainen); (4) "Family and personality factors for sleeping difficulties in a northern Finnish cohort of first and second born children" (Leila Seitamo); and (5) "Beginnings of joint role play in the day care centre. An activity-theoretical viewpoint" (Maritta

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Hannikainen). The third symposium, "Hungarian research and practice in relation to prematurated and gifted children," contains the following papers: (1) "Prematurely born children at school" (Magda Kalmar and Magdolna Estefan Varga); (2) "Quantitative and qualitative aspects of language development in low birthweight children" (Ersebet Csiky); (3) "Learning techniques and self-knowledge with talented school children" (Laszlo Balogh, Imre David, Kalman Nagy, and Laszlo Toth); (4) "Nonspecific effects of musical education in childhood" (Judit Pasku, Ilona Kerekes, and Ference Fekete); (5) "Teachers' opinion about the nature of giftedness" (Imre David and Laszlo Balogh); (6) "Explicit and hidden problems of the parents. One year at the Counseling Center for Gifted in Budapest" (Maria Herskovits); "Gifted children's early years by parental interviews" (Eva Gyarmathy); and (7) "To be equalized or balanced? Difficulties in developing of gifted children" (Zsuzsa Gero). (AA)

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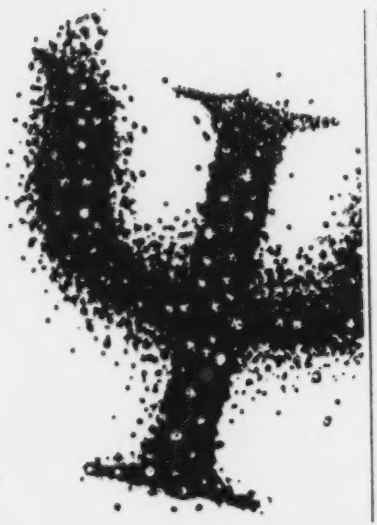

Socialization and the child rearing practice

4th Fenno-Hungarian Conference on Developmental Psychology

4-6 October 1995

Institute of Psychology of Lajos Kossuth University in Debrecen, Hungary.

Edited by Sugár Kádár, J.

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The wonder-deer. Illustration to the Kalevala by Endre Szász

Socialization and the child rearing practice

4th Fenno-Hungarian Conference on Developmental Psychology

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PREFACE

JULIA SUGÁR KÁDÁR

Editor of present issue; Institute of Psychology, Lajos Kossuth University, Debrecen, Hungary and Institute for Psychology, Hungarian Academy of Sciences, Budapest, Hungary

The fourth meeting of Fenno-Hungarian Conferences on Developmental Psychology on the theme of Socialization and the child rearing practice was held in October, 1995, in Debrecen, Hungary.

The Conference was organised by the Institute of Psychology of the Kossuth Lajos University, Debrecen.

The host and sponsors of the conference were

the Lajos Kossuth University of Sciences of Debrecen,
the Institute for Psychology of the Hungarian Academy of Sciences,
the Hungarian Academy of Sciences and
the found "Universitas" granted by the Commercial Bank Company.

The participants of the Conference were researchers of developmental and educational psychology, coming from universities of Finland and Hungary.

It was the fourth Meeting of the series of bilateral conferences on the theme of socialization influenced by different factors of personality and social environment.

The *First Fenno-Hungarian Conference* was held 1988, Lahti, Finland. That included the problems of the modern family concepts, family types, the changing characters of the socialization in the family in our days. The presented papers were published in: Children and family structure: *Child and different relationships of recent family types*, Ed. Mirja Kalliopuska, University of Helsinki, Lahti, 1991.

The *Second Fenno-Hungarian Conference* was held in Budapest, 1991. That Meeting focused on family background and life events, role of parental values and attitudes, development of social competence of child and the different ways and effects of psycho-pedagogical interventions. The papers were published in: *Socialemotional development in family versus in pedagogical institution*, Ed. Julia Sugár Kádár, Institute of Psychology of the Hungarian Academy of Sciences, Budapest, 1992.

The *Third Fenno-Hungarian Conference* was held again in Lahti, in 1993, on the theme of the historical roots of child rearing, related to development of social competence by the interactional patterns of parents, grandparents and the child in his/her different age. The proceedings of that conference were published in: *The significance of parents' and grandparents role*, Ed. Mirja Kalliopuska, University of Helsinki, Lahti Research and Training Center, Finland, 1995.

The theme of the recent, *fourth turn of the series* of the Fenno-Hungarian Conferences joined to the above mentioned topics, discussing the questions of the *Socialization and the child rearing practice*.

The Conference consisted of three Symposia.

The first one contained of those common themes and results of collaborations that have been formed by the previous bilateral conferences.

In the second Symposium the Finnish participants offered new themes for cooperation in the topics of social-emotional and social-cognitive development. In the third Symposium

the Hungarian participants brought up a new problem into common work. That was the social-cognitive development of gifted children.

On the face page of this volume there is a nice symbol chosen as conference logo. It is one of the illustrations to the Kalevala by Endre Szász (1962, Hungary). We have saved this old symbol of our bilateral scientific relation since the second conference in Budapest, because it signes the Finnish and Hungarian common legend on the wonder-deer, drove by Lemminkeinen (in Kalevala) or by Hunor and Magor in the poem on the ancient historical period of the Hungarian people written by János Arany.

At the same time this picture would be an allegory of the driving curiosity of research and the infinite perspective of discovery.

Part 1

Results of the collaborations on the basis of the series of the Fenno-Hungarian conferences

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DEVELOPMENT OF GENDER CONSTANCY AMONG FOUR-YEAR-OLD CHILDREN IN FINLAND AND ESTONIA

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ANU LEPPIMAN
Pedagogical University of Tallinn, Estonia

1. DEVELOPMENT OF GENDER IDENTITY

The first phase in the development of gender identity is reached when the child can identify itself as a boy or a girl, and can also divide other people into women and men. Children have been found to distinguish typical outward gender traits as young as at the age of 15-18 months. A majority of two-year-olds can identify their own gender when asked by showing photographs of girls and boys. From the age of 2.5 to 3 years, children can also usually identify other people's gender by outward traits. At this stage, the typical characteristics on which children base their conceptions are hair length and clothing. (Bee 1992, Eaton 1983, Hägglund 1986)

During the next phase in the development of gender identity, the child learns to understand the stability of gender throughout life. Researchers have studied this phase by interviewing children and asking them questions such as "When you were a little baby, were you a girl or a boy?" or "When you grow up, are you going to be a mommy or daddy?". In these interviews, it has been observed that children understand the stability of gender from the age of four. So the understanding of gender stability means that the child can know his/her gender as a same also when he/she was a baby and he/she knows that gender will stay permanently as a same when growing up. (Bee 1992)

The third separate phase in the gender identity formation is reached when the child understands the constancy of gender despite superficial changes in clothing, hair length or other outward feature. (Bussey and Bandura 1992, Leonard and Archer 1989, Perloff 1982, Siegel and Robinson 1987, Stangor and Ruble 1989)

The perception of gender stability and gender constancy are two independent phenomena. Children have been found to perceive and understand first the stability of gender, and only later the constancy of gender. This result has been confirmed in numerous studies made in different cultures. (Bee 1992, Coker 1984, de Lisi and Gallagher 1991, Eaton 1983, Kryzanowski and Stewin 1985)

2. PURPOSE OF THE STUDY

The purpose of this study was to describe children's thoughts of the constancy and stability of gender. Our first study question was

> *How well do four-year-old children understand the stability and the constancy of gender?*

We were also interested in the difference between boys and girls. The second question was

Are boys and girls different in their understanding of the stability and the constancy of gender?

Hofstede (1980) studied cultural differences in more than 50 cultures. One of his variables which he used to differentiate cultures was masculinity-femininity. Masculinity according Hosftede means especially large differences between feminine and masculine roles, status, and other features belonging to men and women. Finland was one of Hofstede's subject countries. Unfortunately he did not study Estonia or Russia. According to the results of Hofstede Finnish culture is more feminine than masculine. Swedish, Dutch and Danish are the most feminine cultures in Hofstede's research. Because of our cross cultural interests the third study question was

Are Estonian and Finnish children different in understanding gender stability and constancy?

3. Procedure and the subjects

We interviewed 84 Finnish children and 60 Estonian children. The children were interviewed individually one at a time in their nursery schools. The interview period was approximately 15 minutes. The questions measured children's understanding of the stability and constancy of gender with the reference to themselves. The questions (*Appendix 1*) were presented just in the same way to every child, but it took different time to make the contact to each child before the interview questions.

The children's ages were from 3.5 to 4.5 years so that the half of children were under four and the last over four. In many studies the age of four is the critical age for understanding the stability and constancy of gender. About half of the children were boys.

4. Results

All the children which were interviewed knew their own gender except two Estonian children, but 13 % (18) of the children were not sure whether they had been girls or boys as they were babies. One Finnish child answered that he has not been either boy or girl. The stability of children's own gender was not found by 21 % (28) of the children. The stability was measured with the question, if the child had ever been of another gender (to a girl "have you ever been a boy" and to a boy "have you ever been a girl"). Gender stability was measured by asking whether the child was going to be a woman or a man when he/she is a grown-up. When confronted with this question, 7 % (10) of the children did not understand the stability of gender.

Gender constancy is more difficult for children to comprehend than gender stability. This proved to be true also among the nursery school children in Finland and Estonia: 35 % (49) of the children believed that if they really wanted to, they could be of opposite gender. Some children escaped from the whole question and said that they did not want to be anything else. A clear sense of gender constancy was reflected in one comment: "you cannot change people into something else". As high percentage as 50 % (64) of the children thought that if a person puts on clothes which are typical to the opposite sex, the gender of their own would also change. Several children said that they did not know what would happen if a girl wore boys' clothes or vice verse, because they had never tried it. One boy commented that he could not wear girls' clothes, because he was not born as a girl. Another boy rejected the whole idea, however hypothetical, of changing his clothing, and explained why he wore boys' clothes by saying "it is more fun".

When we compared boys and girls in understanding their gender stability and constancy, the results were very systematic: boys and girls were equally well developed in their concepts of both gender stability and constancy. When we analyzed this also among under and over four years old children, there were no differences between boys and girls. We got the same result when we analyzed separately Finnish children and Estonian children: there were not found any differences between boys and girls.

The third purpose of this study was to compare Estonian and Finnish children. There were many statistically significant differences between two cultures. And in all those cases the results were systematic. Gender stability was more easily understood by the Finnish than by the Estonian children (*Table 1*). The question was: "when you were a little baby were you a boy or a girl?"

When we asked "have you ever been a boy/a girl" again Finnish children, both boys and girls, could give the right answer more often than Estonian children (*Table 2*). The last question measuring gender stability "when you grow up to an adult, are you becoming to be a man or a woman?" did not show any differences between cultures (*Table 3*).

We measured gender constancy with two different questions. The first showed cultural differences but the other did not. When we asked "if you would like to be a little girl/boy, could you be that?", there were cultural differences among boys and girls (*Table 4*). Estonian children did not understand so well than the Finnish children the gender constancy. When we measured the gender constancy by asking: "if you would dress yourself a girl's/boy's clothes, which one are you really then? Boy or girl?", we could notice that it is very difficult for children to understand gender constancy among Finnish and also among Estonian children. There were no cultural differences in that question (*Table 5*).

5. Conclusions

The clear result was that no differences were observed between girls and boys in understanding gender stability and gender constancy. We got the same result both from Estonian and Finnish data. This result is interesting, because in the literature there is also different kind of results. For instance, when measuring Indian children, girls were more gender constant than boys (Bhogle, Sudha and Seethalakshmi 1992). A disparity in the processing of

Table 1. When you were a little baby, were you a boy or a girl? (Note: for tables 1 to 5 the value (Y) axis stands for the right answers.)

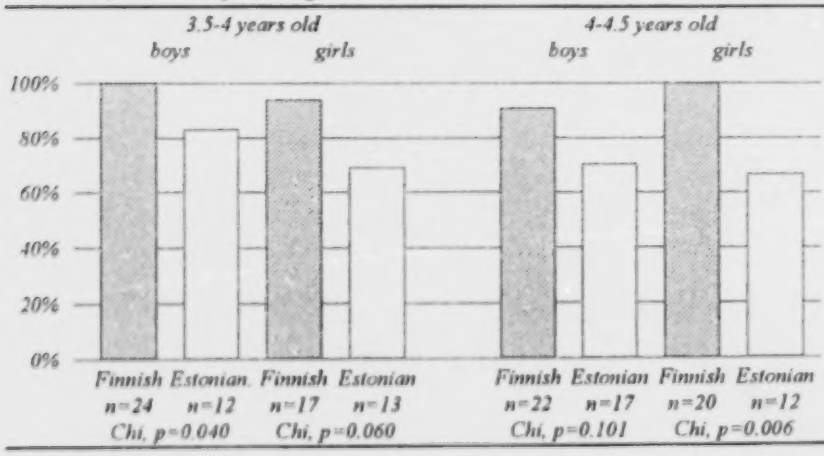


Table 2. Have you ever been a boy/a girl?

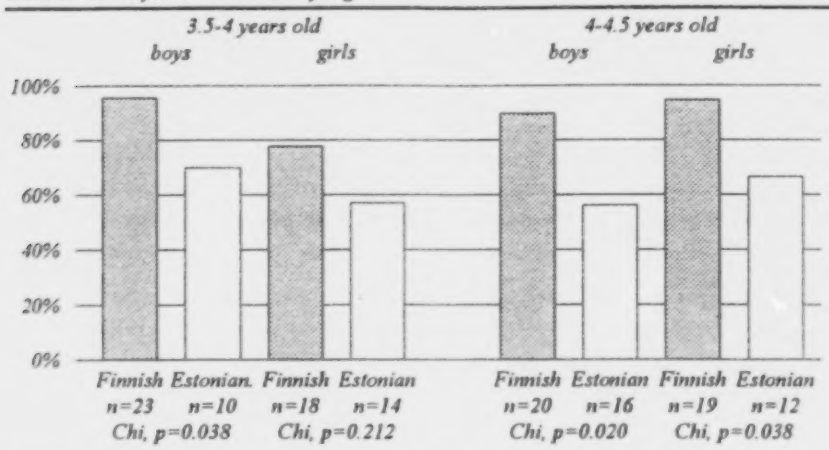


Table 3. When you grow up to an adult, are you becoming a man or a woman?

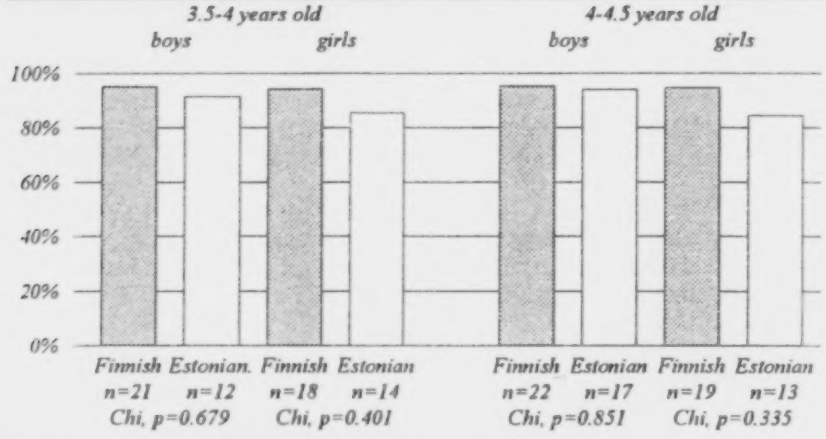


Table 4. If you would like to be a little girl/boy, could you be that?

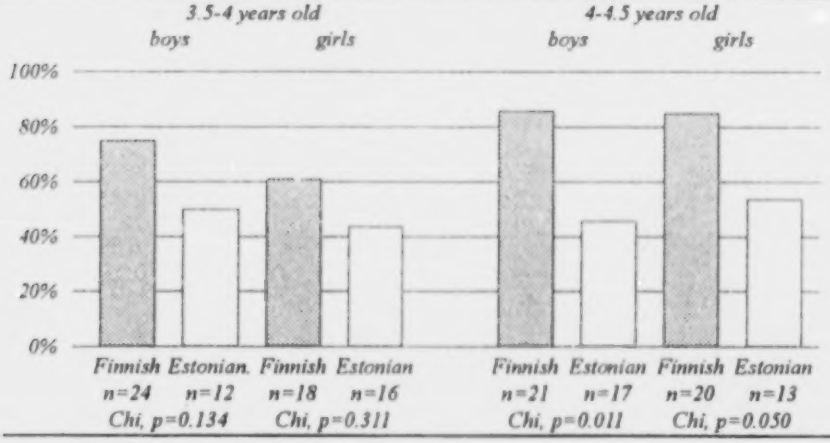
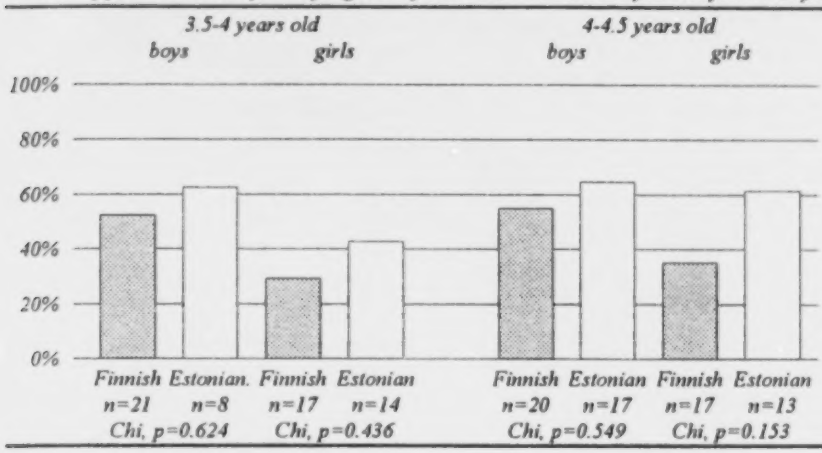


Table 5. If you would dress yourself a girl's/boy's clothes, which one are you really then? Boy or girl?



gender-script information seems to be more evident in US boys than girls (Levy and Fivush 1993). Also in Bem's (1989) research American girls had significantly more genital knowledge than boys and displayed more gender constancy.

The second, clear result was that the concept of gender stability was more easily understood than the concept of gender constancy. This result confirmed many earlier results, and also in different cultures.

The last, interesting result was the cultural differences between Finnish and Estonian children. Finnish children were more aware of their gender stability and their gender constancy than Estonian children. This is the result which is impossible to explain with this data. We need more and different kind of data to explain the cultural difference in children's understanding of gender stability and constancy. It could be important to get some general information about the differences between Finnish and Estonian cultures, economics, family life and so on.

Whether it is easier to grow up and develop as a girl or a boy is regulated by cultural factors. The challenge in supporting the child's development is, therefore, to help both girls and boys acquire attitudes appreciative of their own gender. In Finnish society we have discussed, if it is more difficult to grow up as a boy than a girl. On the other hand, there has also been a lot of discussion about how girls are brought up to be different from boys. In other words, they learn to be submissive and obedient, and this hinders their development into enterprising human beings, who can stand up for their own wishes.

At the conceptual level, a distinction can be made between gender concept and gender identity. The conception of one's own gender also includes the realization of the constancy and stability of gender. Gender identity, which is based on gender concept, means identifying with either the male or the female sex and internalizing the behavior and characteristics of that particular gender. The formation of gender identity enables us to perceive and accept our own female or male sex. A clear gender identity, which is accepted and valued, forms an essential component in the individual's integrated personality, mental well-being and vitality. Therefore, an important objective in childrearing is to support the development of a clear and positive gender identity.

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(Continued on page 17 with Appendix)

APPENDIX

Are you a boy or a girl?

Gender stability

1. When you were a little baby, were you a boy or a girl?
2. Have you ever been a boy/a girl?
3. When you grow up to an adult, are you becoming to a man or a woman?

Gender constancy

1. If you would like to be a little girl/boy, could you be that?
2. If you would dress yourself a girl's/boy's clothes, which one are you really then? Boy or girl?

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GENDER IDENTITY AND GENDER CONSTANCY IN THREE-YEAR-OLDS

A comparison of Hungarian and Finnish preschool children

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INTRODUCTION

Gender[1] is one of the first, and perhaps most salient, distinctions that children make in classifying others, and they learn very early that they themselves belong to one or the other category (e.g., Thompson, 1975; Weinraub, Clemens, Sokoloff, Ethridge, Gracely and Myers, 1984). When making decision about a person's sex, young children usually rely on surface criteria such as hairstyle and clothing. Adults, however, rely on anatomical features that remain unaffected by changes of superficial cues, so appearance-based transformations are irrelevant in their judgement. Gender constancy – the ability to conserve gender across perceptual changes – has been interpreted within a Piagetian framework as a capability that parallels with other forms of conservation (Kohlberg, 1966). Girls and boys start to behave differently early in life, before they even know they are girls and boys, and they develop awareness of sex-stereotypes much before understanding the permanence of gender (Huston, 1983). Assessments with the widely used instrument (Emmerich, Goldman, Kirsch and Sarabany, 1977) to measure gender constancy showed that it is not until age 6 to 7 years that children demonstrate constancy despite the change of hairstyle and/or clothing of a pictured person.

Traditional gender constancy assessments have been criticized because of the unrealistic nature of the pictorial stimuli, and for various aspects of the linguistic structure they used. The stimulus figures, line drawings of a girl and a boy of the widely used Emmerich test were considered both unrealistic and overly stereotypical, and thus ecologically not valid (Bem, 1989; Intons-Peterson, 1988). These authors argued for using more realistic stimuli and procedures which emphasize the continuity of personal identity across surface transformations, such as cross-dressing. Others, who worried about children's understanding of the gender constancy interview, experimented with changing the verbal structure of the tests. Martin and Halverson (1983) obtained a higher proportion of correct responses

[1] Sex and gender are used as synonyms.

among 4- to 6-year-old children by asking about real changes in an emphatic way. Leonard and Archer (1989) added questions to the Slaby and Frey (1985) interview by which they tried to distinguish between children's 'real' and 'pretend' responses, and they also concluded that gender constancy was established at an earlier age than suggested previously. While they argued that children who at first failed on the test responded in a 'pretend mode', it would be also possible to interpret their results that asking repeated questions about 'real' and 'pretended' changes might generate false positives. Beal and Lockhart (1989) showed that labelling of stimulus figures by using highly sex-typed proper names (e.g., 'Jane' and 'John') as opposed to pronouns or neutral expressions, such as 'this child', resulted in more correct responses.

McConaghy (1979) was the first pointing to the importance of understanding the invariance of the biological sex differences for the development of true gender constancy. By using highly schematic line drawings of a girl and a boy differing only in hair length, clothing and genitals, McConaghy reported very low levels of gender constancy among Swedish children (e.g., 0% at age 4) which were all the more striking as Swedish children were supposed to have much more biological knowledge about sex than children of many other cultures. Bem (1989), who also argued for the importance of biological knowledge pointed out the shortcomings of the McConaghy procedure (using ambiguous questions and unrealistically schematic drawings) and designed a new measure using nude photographs. Using this method, Bem found that a 40% of 3- to 5-year-old children "could conserve sex across perceptual transformations, but only if they had the domain-specific knowledge that the genitalia constitute the defining attributes of male and female".

The present study is aimed at investigating the salience of genital cues in the gender constancy interview, and thus may serve as a replication to Bem's study, although not an exact one, as we have used different stimulus material. In order to assess the salience of the genital cues in the gender constancy test we carried out two kinds of assessments. One of them was a modified version of the Beal and Lockhart (1989) 'paper doll' procedure, the other was designed for the current study and used commercially available male and female plastic dolls resembling newborn babies and having anatomically correct genitals. In developing our procedure, we tried to avoid the pitfalls of generating false negatives or positives by integrating various modifications suggested by a number of authors cited above.

We expected that using the 'plastic doll' procedure would result in a higher proportion of 'gender constant' children than using the 'paper doll' test. Based on Bem's (1989) findings, we also expected a clear association between identifying the doll's genital as a defining attribute of its sex and the performance in the conservation test. Also, girls were expected to be more advanced in biological knowledge (see also Bem, 1989). We carried out the study first with Hungarian 3- to 4-year-old children, and then moved on to test Finnish preschoolers. We assumed that the wide practice of family sauna provided Finnish children with more and earlier opportunity to learn about genital sex differences and to recognize the causal relationship between the genitals and the sex of a person. Thus, we predicted that for Finnish preschoolers the genital cues of the 'plastic doll' procedure would be more salient than for their Hungarian counterparts, and they would show an earlier and/or greater degree of gender constancy.

METHOD

Subjects

The Hungarian sample of 20 girls and 24 boys aged 36 to 48 months (mean age 43.7 months) came from five Budapest preschools. Finnish preschoolers, 19 girls and 25 boys, aged 40 to 48 months (mean age 44.7 months) visited three day-care centers in Turku.

Procedures

After obtaining a written permission from their parents, children were randomly assigned into two groups – 'paper doll' or 'plastic doll' – according to the stimulus used in the gender constancy test. There were no significant age difference between the groups according to sex, country or assessment procedure. Children were interviewed individually by a female experimenter in a separate room of the preschool. First, each child was assessed by a gender constancy interview using either a same-sex paper doll (*Figure 1*) or a plastic doll (*Figure 2*). After completing the 'paper doll' or the 'plastic doll' procedure, each child was asked a series of questions about him/herself. Before starting data collection in Turku, the procedures were translated into Finnish by a Hungarian lecturer in Budapest, back-translated to English, checked and discussed by two of the authors (J. G. and S. K.).

Figure 1. Paper dolls in 'appropriate' clothes and hairstyle

a. girl *b. boy*

Figure 2. Plastic dolls

a. naked girl

b. girl with 'appropriate' hair and clothes

c. naked boy

d. boy with 'appropriate' hair and clothes

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Gender constancy test

Paper doll (modified from Beal and Lockhart, 1989). The subject child was presented with a same-sex paper figure dressed in 'sex-appropriate' clothing. The interviewer said: "This is a girl [boy]" and went on asking one 'motive' and four 'transformation' questions:

1 "Could this girl [boy] *really* become a boy [girl], if she [he] wanted to be?"

2 "What would she [he] *really* be if she [he] was playing with boys' [girls'] toys, a girl or a boy?"

While asking the next three 'transformation' questions the experimenter changed the paper doll's hairstyle, the clothes, and finally both.

3 "If she [he] cut her hair short [grew his hair long] like this" (the interviewer changes the paper doll's hairstyle only), "what would she [he] *really* be, a girl or a boy?"

4 "If she [he] wore boys' [girls'] clothes, like this" (the interviewer changes the paper doll's clothing only), "what would she [he] *really* be, a girl or a boy?"

5 "If she [he] cut her hair short [grew his hair long] like this" (the interviewer changes the paper doll's hairstyle), "and wore boys' [girls'] clothes, like this" (the interviewer changes the paper doll's clothing), "what would she [he] *really* be, a girl or a boy?"

The order of alternatives (girl or boy) in the questions was counterbalanced. The modification of the procedure used by Beal and Lockhart (1989) involved emphasizing reality in the interview questions. In an earlier experiment (Németh and Gervai, unpublished manuscript) we found that many 3- to 4-year-old children distinguished appearance and reality in the gender constancy test if *'look like'* and *'really be'* questions we asked emphatically.

Plastic doll. The subject child was given a 40 cm tall naked same-sex plastic doll resembling a baby and having anatomically correct genitals. The child was first asked to look at the doll carefully and identify its sex. If s/he failed to reply correctly, the question was repeated, and if the child failed again then we immediately proceeded with asking the questions relating to self. If the doll's sex was correctly identified, the interviewer next asked how the child knew that the doll was a girl [boy]. If s/he failed to name or point to the genital then a third question was asked: "Is there anything on the doll's body that helped you decide whether it is a girl [boy]?" Then the child and the interviewer together dressed the doll in 'sex-appropriate' clothes, and the procedure continued with the same series of questions that was used in the 'paper doll' procedure. The hair and clothing of the plastic doll were changed during the procedure in the same manner.

Gender identity and constancy relating to self (based on Slaby and Frey, 1975)

Four questions were asked from each child:

1 "Are you a girl or a boy?"

2 "Could you *really* be a [opposite sex] if you wanted to be?"

3 "If you wore [opposite sex] clothes, what would you *really* be, a girl or a boy?"

Response to each question of each procedure was recorded separately.

Results

Gender constancy relating to self

Results of the gender constancy interview relating to self are summarized in *Table 1*. With the exception of two Hungarian girls and two boys, who were excluded from further testing, all children identified their own sex correctly.

Hungarian and Finnish 3-year-olds did not differ significantly in identifying their own sex. For the 'motive' question, however, Finnish children were more likely than Hungarian children to show gender constancy, i.e., more Finnish than Hungarian preschoolers answered that they could not really change sex if they wanted (Chi-square=8.91, $p<0.005$). But the advantage of Finnish children disappeared when they were asked if their sex would change by wearing opposite-sex clothes (Chi-square=1.16, ns.). There were no significant differences between girls and boys with regard to their performance in the own-sex interview.

Table 1. The proportion of Hungarian and Finnish children responding correctly to the interview questions relating to self.

	Number/Percentage of correct responses					
	Girls		*Boys*		*All children*	
Gender constancy interview questions	*Hun N*	*Finn N*	*Hun N*	*Finn N*	*Hun %*	*Finn %*
'IDENTITY' – "Are you a girl or a boy?"	*18*	*19*	*22*	*25*	*91*	*100*
'MOTIVE' – "Could you really *be a [opposite sex] if you wanted?"*	*4*	*12*	*11*	*18*	*34*	*68*
'CLOTHES' – If you wore [opposite sex] clothes, what would you really *be, a boy or a girl?*	*8*	*5*	*14*	*11*	*50*	*36*

Gender constancy relating to same-sex models

Genital knowledge. This was assessed on the basis of the first part of the 'plastic doll' procedure. Many of the children identified the sex of the naked doll successfully (24 vs. 4 and 21 vs. 7 among Hungarian and Finnish children, respectively; Chi-square=0.45, ns.). Finnish children were not more likely to identify the doll's genital as a cue to its sex (14 vs. 10 and 17 vs. 4 among Hungarian and Finnish children, respectively; Chi-square=1.72, ns.).

The salience of genital cues. The number of Hungarian and Finnish girls and boys, (and the percentage of children of both sexes combined) responding correctly in the gender constancy interview are shown in *Table 2*.

The proportions of gender-constant children were not significantly different across the interview questions in the Finnish study. In Budapest, fewer children maintained a stable sex concept when they were asked if the model's sex could be changed by wish (see 'motive' question), than when asked about changing sex with changing appearance, i.e. hairstyle and clothing (Chi-square=5.42 and 3.52, $p<0.05$ and 0.06 for hairstyle and clothing, respectively). Comparing the performances in the 'plastic doll' vs. 'paper doll' tests, we found that neither Hungarian nor Finnish children performed significantly better in any of the subtests of the 'plastic doll' procedure.

In order to compare performances of the Hungarian and the Finnish children, we combined the responses from the two procedures using the same-sex doll models. There were no significant differences between the proportions of Hungarian and Finnish children responding correctly to the various test questions (i.e., Chi-square=1.64 and 1.09, ns. for the 'motive' and 'hairstyle' questions, respectively). If anything, Hungarian children seemed

Table 2. The proportion of Hungarian and Finnish children responding correctly to the questions of the gender constancy interview relating to same-sex models.

Gender constancy interview questions	*Number/Percentage of correct responses*					
	Girls		*Boys*		*All children*	
	Hun N	*Finn N*	*Hun N*	*Finn N*	*Hun %*	*Finn %*
'MOTIVE' – "Could s/he really be a [opposite sex] if s/he wanted?"						
Paper doll	*0*	*1*	*2*	*3*	*13*	*25*
Plastic doll	*2*	*5*	*2*	*2*	*17*	*33*
'HAIRSTYLE' – "If s/he cut her hair short [grew long], what would s/he really be, a girl or a boy?"						
Paper doll	*5*	*3*	*3*	*1*	*50*	*25*
Plastic doll	*6*	*3*	*2*	*3*	*35*	*29*
'CLOTHES' – "If s/he wore [opposite sex] clothes, what would s/he really be, a girl or a boy?"						
Paper doll	*3*	*1*	*4*	*1*	*44*	*13*
Plastic doll	*5*	*3*	*2*	*1*	*30*	*19*
'HAIRSTYLE AND CLOTHES' – If s/he cut her hair short [grew long] and wore [opposite sex] clothes, what would you really be, a girl or a boy?						
Paper doll	*3*	*0*	*1*	*0*	*25*	*0*
Plastic doll	*8*	*3*	*2*	*3*	*42*	*29*

Note. In the 'plastic doll' procedure only those children were tested who could correctly identify the doll's sex. The final number of Hungarian and Finnish children tested with the same-sex model were: 8 girls & 8 boys and 6 girls & 10 boys with the 'paper doll'; 10 girls & 14 boys and 9 girls & 12 boys with the 'plastic doll' procedure.

marginally more able to conserve sex despite changing the doll's clothes, or both hairstyle and clothes in a gender-inconsistent way (Chi-square=2.85, $p<0.10$ for both conditions).

Genital knowledge, knowledge of own sex invariance, and gender constancy

In order to see what role biological knowledge played in individual children's gender constancy, test performances of children who identified the genital as a cue to the plastic doll's sex were contrasted with performances of those children who failed on this task. We found no significant difference between these groups (Chi-square=0.18 and 0.14, ns. for Hungarian and Finnish children, respectively). Of the Hungarian and Finnish children who showed genital knowledge, 39% and 29% passed the gender constancy test as well, but of those who failed, also 38% and 25% passed the constancy test.

We also checked whether children who clearly showed an understanding of the invariance of their own sex performed better when tested with the same-sex models, than those who failed at understanding the permanent nature of their own sex. Although 50% of the Hungarian and 36% of the Finnish 3-year-olds in the present study seemed to understand that their sex would remain the same even if their appearance changed in a 'gender-inconsistent' way, this knowledge was not closely related with their gender constancy measures. Neither Hungarian, nor Finnish children who gave correct responses about themselves were more likely to show gender constancy, than those children who failed on the self-related test

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('motive': Chi-square=0.27 and 1.06, ns.; 'clothes': Chi-square=0.41 and 1.69, ns. for Hungarian and Finnish children, respectively).

We found no significant sex differences in children's performances in any of the subtests of the gender constancy procedures.

Discussion

As expected, almost all 3-year-old children of the current study knew their own sex. More Finnish than Hungarian children knew clearly that their own sex can not be changed by wish, but few of them could conserve their own-sex across a superficial transformation (i.e. wearing opposite-sex clothes). In this latter respect Finnish children did not perform better than their Hungarian counterparts.

The great majority of children also identified the sex of the same-sex plastic doll correctly, and many of them demonstrated the domain-specific genital knowledge by referring to the doll's genitals as a defining attribute of its sex. Contrary to our expectations, however, Finnish children did not use the genital cue to a greater degree than Hungarian ones. Further, neither Hungarian, nor Finnish children showed a higher degree of gender constancy when they were tested using stimulus material with explicit genital cues. While we expected better performances of both groups in the 'plastic doll' procedure, we hypothesized that the genital cues would be even more salient for Finnish than for Hungarian preschoolers, as the former were expected to possess greater biological knowledge. However, it is worth noting that in the current study the proportion of gender-constant 3-year-olds was higher (up to 50% depending on stimulus material and transformation) than in many other studies using pictorial material and perceptual transformations.

Contrary to expectations and Bem's (1989) findings, however, in the current study we did not find an association between genital knowledge and gender constancy. Neither children who defined the sex of the stimulus doll on the basis of its genital, nor those who maintained a stable sex concept about themselves were more likely to show gender constancy across perceptual changes. Again, there was no difference between Hungarian and Finnish children in these respects.

Bem (1989) also reported, and using Bem's original photographs, Lloyd and Stroyan (1994) confirmed that 3-year-old girls have more genital knowledge than boys of the same age. We did not find such a difference between girls and boys in the current study, nor did girls perform better in the gender constancy test. As we used different stimulus material, it was quite possible that our plastic dolls, although having anatomically correct genitals, were still not realistic enough. However, it is unlikely that the lack of stimulus salience has caused the differences from Bem's findings. First, nearly 70% of the children in the current study used the genitals as the defining attribute of the doll's sex and second, the proportion of gender-constant 3-year-olds in the current study was comparable to the 40% reported by Bem (1989).

In summary, we think that genital knowledge is not enough for understanding the invariance of sex across surface transformations. Although more and earlier exposure to sexual anatomy is likely to facilitate making the causal link between the genitals and the sex categories, and this may contribute to the knowledge that sex cannot be simply changed by wish, it does not result in an earlier acquisition of gender constancy, i.e. maintaining a stable concept of sex against perceptual changes. Bem (1989) also reported an age effect by noting that , "...among children who had the genital knowledge, more 4- and early 5-year-olds passed the conservation task than 3-year-olds...". We suggest that for an explanation of

this age effect we should look at more generic developmental processes as suggested by Kohlberg (1966).

AUTHOR NOTES

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COMPETITION AMONG HUNGARIAN AND FINNISH MOTHERS

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In my studies on motherhood I have focussed on the feelings and attitudes mothers have about motherhood. I have been particularly interested in how mothers idealize motherhood and deny their ambivalent feelings about motherhood (Niemelä 1982, 1992). When I was leading discussion groups for mothers-to-be (Niemelä, 1992), where mothers expressed their ambivalence about becoming a mother and having a baby, I often noticed that mothers were competing in motherhood. Couples in couple groups and fathers in fathers' groups were competing even more than mothers. All this competing was carried out in a rather indirect fashion as an attempt to convince others about one's maturity and readiness for parenthood. When the group leader made an attempt to confront the group members pointing out their mutual competitive behavior, every group member denied competing. I felt the competition among parents to be an interesting phenomenon, worth studying on its own right. There are no earlier studies on mothers' or parents' competition.

When I met Márta Fülöp at a Finnish-Hungarian research symposium and learned to my delight about her interest in competitive behavior, I suggested we study mothers' competition together. We decided to compare Finnish and Hungarian mothers as to their way of competing as well as to their acceptance of competition. We wanted also to see if the Finnish and the Hungarian mothers would differ in how much they idealize motherhood (Niemelä 1982), and in how well they accept the ideal mother image (Niemelä 1982) rendered them by both cultures.

METHOD

Subjects

The Finnish subjects were 18 mothers participating in my longitudinal study (Niemelä 1992). These mothers were first interviewed in their first pregnancy, and thereafter three weeks, one year, two years, three years, four years and eight years after the birth of their first child. The present interview took place when their first borns were eighteen years old. The mothers were originally selected to the study with the following criteria: they were 20-30 years old in their first pregnancy, had a permanent relationship with the child's father, had no psychiatric history, no pregnancy complications and were expected to have a normal childbirth. At the time of the present interview the mothers were 38-48 years old and healthy. The Hungarian subjects were 19 mothers of schoolchildren. They were selected by Márta Fülöp as a comparable group for the Finnish mothers.

Interview

The mothers were first asked to identify the areas in which women compete. First the mothers answered freely, then assessed on a scale from 5 (=much) to 1 (=little) the amount of women's competition in the following areas: career, femininity, wifehood, taking care of one's own elderly parents, and looks. The second question asked "Do you compete with mothers who have children of the same age as you do?" and further asked the mother to

compare herself with her own mother: "How are you better and how worse compared to your own mother?". The third question asked "Do you think that other mothers compare themselves to other mothers and compete with them: in which respects and in which areas?" The fourth question continued on this theme and asked: "Do you think that mothers compete in their children's success, children's behavior, children's appearance, children's hobbies, in their pregnancy, childbirth, breast-feeding, and child care?". Mothers assessed in each area on a scale from 5 (=much) to 1(=little) how much they thought mothers compete. The fifth question asked "In which areas do you feel you are winning and in which areas loosing?"

The mothers were asked also to assess their overall self-esteem on a five point scale from 5 (=high) to 1 (=low), as well as their self-esteem in several roles, e.g. as mothers, as wives, as housekeepers and as workers, on a scale from 100 (very high) to -100 (=very low).

In addition, the mothers estimated their acceptance of five statements depicting idealization of motherhood, e.g. "A woman can feel herself as a woman only after childbirth", on a five point scale from 5 (=I totally agree with the statement) to 1 (=I do not agree). The mothers also estimated their acceptance of the Ideal Mother Image by means of 12 statements on a seven point scale from 7 (= I totally agree with the statement) to 1 (=I do not agree). The Ideal Mother Scale I includes 5 statements, e.g. "The ideal mother is always patient" and "Never feels annoyed with the child care". This scale is called "The Ideal Mother Denies Her Own feelings". The Ideal Mother Scale II includes 5 statements, e.g. "The ideal mother is self-sacrificing" and "Adapts her life to the needs of her child with pleasure". This scale is labelled "The Ideal Mother Forgets Her Own Needs". The Ideal Mother Scale III consists of the statements "The ideal mother attempts to be a perfect mother" and "Gets all her life satisfaction through motherhood". This scale is called "The Perfect Mother".

The mothers were also asked to assess the support they have received as mothers.

Analysis

The answers were analysed in two ways. The answers of the Finnish mothers were translated verbatim into English, so that Márta Fülöp was able to perform the comparative content analysis between the Finnish and the Hungarian mothers.

The assessments given by the Finnish and the Hungarian mothers were compared with the nonparametric U-test, due to the small number of the subjects. The means were calculated for the two groups. This paper gives the means and the p-values for the Finnish and the Hungarian mothers. The p-values less than 0.05 are here considered as significant, and the p-values less than 0.10 are interpreted as not significant but showing a trend.

Results

Table 1 gives the means of the assessments by the Finnish and the Hungarian mothers on how much women compete in different areas.

Mothers in both countries agree that women compete the most in how they look, quite much in their career, femininity and wifehood, and the least in how they take care about their elderly parents. The only significant difference between the two groups is that the Hungarian mothers assess women to compete more in femininity than do the Finnish mothers.

The second question asked if the mother herself competed with other mothers. Many women said that they do not compete with other mothers, but they talked about other mothers competing. This pattern of answers was combined into one assessment: 5 (=mother

Table 1. What do women compete in with other women? The means of assessments by the Finnish mothers and Hungarian mothers on a scale from 5 (=compete much) to 1 (=compete little), and the p-values for U-test describing the difference between the Finns' and the Hungarians' means.

Women's competition areas	Finnish mothers	Hungarian mothers	p
carreer	3.63	3.67	
femininity	3.22	4.22	.0116
as a wife	3.05	3.39	
taking care of old parents	1.63	1.89	
looks, appearance	4.00	4.00	

says: "I do not compete but others do") to 1 (=this pattern cannot be seen in the answers). It was also assessed whether the mother started in fact comparing herself to other mothers when answering the questions: 5 (=starts to compare) to 1 (=does not start to compare). The results are given in *Table 2*, showing that both the Finnish and the Hungarian mothers show the pattern of denying one's own competition but agreeing with others' competition. Further, both the Finns and the Hungarians start comparing themselves with others. No significant differences were found between the Finnish and the Hungarian assessments.

The mothers were also asked to compare themselves with their own mother. We evaluated the mothers in whether they assessed themselves as better or worse as mothers compared to their own mothers. The means in *Table 2* show that the mothers on average

Table 2. Do you compete with other women? How do you compare yourself with your own mother? The means for researchers' assessments of the answers. For symbols see table 1.

Women's competition areas	Hungarian mothers	Finnish mothers	p
I do not compete, others do (5=says much, 1=does not say)	2.36	2.56	
Starts to compare herself with others (=5, not=1)	4.33	3.61	
Herself better (=5) or worse (=1) than own mother	3.82	3.88	
Says (=5, not=1) good and bad sides about own mother	2.06	3.94	.0041
Describes own mother as an attender (=5, not=1)	2.39	4.00	
Describes own mother as a hard worker (=5, not=1)	1.94	2.38	.1051
Compares (=5, not=1) herself with other mothers	4.83	3.78	
Refers (=5, not=1) to children when comparing	4.39	3.61	.0484

assessed themselves as slightly better than their own mothers. The Finnish and the Hungarian means are very close. The answers about one's own mother were examined as to whether the mother mentioned both good and bad features about her mother, and were assessed from 5 (=mentions both good and bad features) to 1 (=mentions only good or only bad features about her mother). *Table 2* shows that the Hungarian mothers mentioned significantly more often both good and bad features about their mothers. The mothers described their own mothers quite often as "attenders" or as "hard workers". We wanted to see if there were differences between the Finns and the Hungarians in this respect, and assessed as "5" if their own mothers were clearly described as "attenders" or "hard workers", as "4" if less clearly so, etc, and as "1" if these attributes were not mentioned. Both attributes were given more by the Hungarian mothers, although the differences are not significant.

We also assessed if the mother started to compare herself with other mothers. *Table 2* shows that the mothers did compare themselves with other mothers quite much. We also noted and assessed if the mothers spontaneously referred to children when comparing themselves with other mothers. *Table 2* shows that both the Finnish and the Hungarian mothers did so, and that the Finnish mothers referred to children significantly more often than the Hungarian mothers did.

The answers to the third question were only content-analysed. *Table 3* shows the results of the fourth question, "What do mothers compete in?". The mothers assess mothers to compete in their children, most in the children's success, and quite much in the children's behavior and looks. The Finnish and the Hungarian mothers do not differ much in these assessments.

Table 3 shows also mothers' assessments of competition in pregnancy, childbirth, breast-feeding and child care. According to the assessments mothers compete most in child care and least in pregnancy. There is a trend that Hungarian mothers assess mothers to compete more in pregnancy and child care than Finnish mothers do.

The fifth question "In which areas do you feel you are winning and in which areas loosing?" invited subjects to ponder in which areas they feel they are good/bad. It was assessed how much the mother dared to start pondering over this topic, on a scale from 5 (=dares to ponder much) to 1 (=does not dare to ponder). *Table 4* shows that the subjects listed more areas where they felt they were good than areas where they felt they were poor. There were no differences between the Finnish and the Hungarian mothers.

Table 3. What do mothers compete in? The means of mothers' assessments. For symbols see table 1.

Mothers' competition areas	*Finnish mothers*	*Hungarian mothers*	*p*
children's			
• *success (5=much, 1=little)*	*4.16*	*4.44*	
• *behavior* "	*3.32*	*2.72*	
• *looks* "	*3.32*	*3.22*	
pregnancy (5=much, 1=little)	*1.87*	*2.83*	*.0661*
• *childbirth* "	*2.68*	*3.00*	
• *breast-feeding* "	*2.58*	*3.22*	
• *child care* "	*2.71*	*3.56*	*.0914*

Table 4. In which areas are you good/bad and winning/loosing? The means of researchers' assessments of the number of areas in which the mothers regarded themselves winning/loosing as well as of how much the mothers dared to think and talk about the topic. For symbols see table 1.

Winning / Loosing	Finnish mothers	Hungarian mothers	p
Winning: n of areas	2.43	2.12	
Losing: n of areas	1.06	1.41	
Dares (=5, not=1) to think how good/bad she is	2.29	3.53	.0133
Talks much (=5), little (=1) about winning/losing	2.55	2.94	

Table 4 also shows that the Hungarian mothers dared to ponder significantly more over how good/bad they are. There was little difference between the Finns and the Hungarians in how much they talked about winning/loosing.

Table 5 gives the mothers' assessments of their self-esteem. The means for the overall self-esteem are somewhat above the average. There is no difference between the Finnish and the Hungarian mothers.

Table 5 gives the means for the self-rated self-esteem also in different roles. Both the Finnish and the Hungarian mothers assess their self-esteem to be the highest at work, the second highest as mothers, and the lowest regarding their looks. In these areas there are no differences between the Finnish and the Hungarian mothers. However, there are differences in other respects. The Hungarian mothers assess their self-esteem almost significantly higher in relation to their husband, their own mother and other relatives.

Table 5. The means for self-rated self-esteem. For symbols see table 1.

Self-esteem	Finnish mothers	Hungarian mothers	p
Overall self-esteem high (=5) or low(=1)	3.71	3.56	
Self-esteem in roles high (+100) or low (-100)			
• in motherhood	63.16	74.33	
• with husband	43.84	69.94	.0578
• as a homemaker	51.25	68.61	
• at work	74.33	80.83	
• with friends	66.21	69.44	
• with own mother	62.37	82.80	.0589
• with other relatives	50.00	71.94	.0616
• looks	35.56	47.78	

Table 6. The means of Idealization of Motherhood and Ideal Mother Image scales. For symbols see table 1.

Idealization and Ideal Mother Image	Finnish mothers	Hungarian mothers	p
Idealizing motherhood (min=5, max=25)	12.90	14.78	
Ideal Mother I (min=7, max=35)	18.26	17.28	
Ideal Mother II (min=7, max=35)	15.94	18.39	.0719
Ideal Mother III (min=2, max=14)	6.11	7.56	.0546
"The ideal mother attempts to be a perfect mother" (min=1, max=7)	3.16	4.00	.0352

Table 6 shows the means for the Idealization of Motherhood. The means show that neither the Finnish nor the Hungarian mothers idealize motherhood much.

Table 6 shows also the means for the mothers' images of the Ideal Mother. The means for the Ideal Mother I, "The Ideal Mother Denies Her Own Feelings", as well as for the Ideal Mother II, "The Ideal Mother Forgets Her Own Needs", show that the mothers agree fairly little with these two ideal mother images. The means for the Ideal Mother III, "The perfect Mother", show that the mothers agree with this ideal mother scale more than with the other scales. There is a trend for the Hungarian mothers to agree more with the II and the III ideal mother scales. The Hungarian mothers agree significantly more with the item "The ideal mother attempts to be a perfect mother", included in the Ideal Mother III scale.

Table 7 gives the means for mothers' assessments of support received from one's own mother and husband. Both the Finnish and the Hungarian mothers estimated that they have received some support from their mothers. As to the support from the husband, the Finnish mothers estimated that they have received quite much support from their husbands, while the Hungarian mothers estimated that they have received almost no support. The difference is statistically significant. The mothers also assessed whether they have received enough support. Here also the Finnish mothers estimated that they have gotten close to enough support, while the Hungarians estimate that they have not gotten enough support. This difference is close to significant.

Table 7. The means for mothers' assessments of received support as mothers. For symbols see table 1.

Support	Finnish mothers	Hungarian mothers	p
From own mother (5=much, 1=no)	2.24	2.94	
From husband (5=much, 1=no)	3.60	1.50	.0003
Enough support (=5, not=1)	3.67	2.50	.0535

Discussion

Both the Finnish and the Hungarian mothers see women as competing with each other in looks, career, femininity and wifehood. They also see mothers as competing with other mothers, most in their children's success but also in the children's behavior and looks, and further also in childbirth, breast-feeding, child care, etc. Both the Finns and the Hungarians show the pattern of agreeing that other mothers compete but denying that they themselves compete as mothers. Both the Finnish and the Hungarian mothers assess their self-esteem as a mother rather high, higher than e.g. as a housekeeper or as a wife, but lower than as a worker.

Even if the Finnish and the Hungarian mothers show many similarities in their assessments, there are also differences.

The Hungarian mothers more readily ponder their good and bad features when asked in which areas they are winning/loosing. The Hungarians assess their self-esteem higher in relation to their husbands, their own mothers and other relatives. Further, the Hungarian mothers assess women as competing more in their femininity than do the Finnish mothers. According to these results the Hungarian women compete more readily and accept competition more willingly than do the Finnish women. They are less scared to assess their good and bad sides, and they have a higher self-esteem in some respects. This raises the question of the difference between the Finnish and the Hungarian cultures as to the acceptance of competition.

When the mothers compare themselves with other mothers, the Finnish mothers refer spontaneously more to children than do the Hungarian mothers, even if there are no differences when the mothers assess the amount mothers compete in children's success, behavior or looks. The Hungarian mothers assess mothers to compete more in pregnancy and child care. They agree more with the item "The ideal mother attempts to be a perfect mother". The result that the Hungarian mother sees mothers as competing more in pregnancy and child care, and attempts to be a perfect mother, could be understood so that the Hungarian mothers compete more in what they themselves do or do not do, while the Finnish mothers compete more indirectly and refer to children when they talk about competing. It seems that the Hungarian mothers more readily accept and express their wish to be perfect as mothers.

The Hungarian mothers assess that they have received much less support than the Finnish mothers assess. It is possible that the Finnish mothers receive more support in the parenting task, particularly from their husbands. Could this be related to the more indirect way of competing of the Finnish mothers? Do the Finnish mothers understand child rearing more as a joint parenting task with their husbands, and therefore show less desire to compete in motherhood? Or is the assessment of less support by the Hungarian mothers related to the fact that they also compete in taking care of the children alone, without support from their husbands? These questions cannot be answered without further study and more understanding of the differences between the Finnish and the Hungarian family dynamics and family life.

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MOTHER'S COMPETITION THROUGH THEIR CHILDREN

A Finnish-Hungarian comparison

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INTRODUCTION

Every culture places high value on the maternal role, and a mother is, in part evaluated as a person by her participation and success in the maternal role. But how can this success be measured and what is meant to be success in this respect? How can a mother measure her own success? Are there universal criteria for this or everybody personally decides about it? Just like in other cases where self-evaluation is difficult in this case too mothers start to compare themselves to other mothers and their children to other mothers' children. Following the rules of social comparison (Festinger, 1953) this means that the person who compares herself to another comparative party wants to be slightly better than the other, in our case better mother, having better children.

Mothers' competition has never been the focus of systematic research. The main field of competition between women has been considered rather being in the sexual arena, that is women competing with each other for men. If motherhood has been connected to competition it was rather the study of mother/daughter rivalry or in a somewhat anecdotical way mother/daughter-in-law rivalry (to mention just a few: LaSorsa, Fodor, 1990; Basoff, E. 1988).

Another line of research is in connection with A-type–B-type personalities. There are some investigations about A-type, competitive mothers and their educational style. According to the results these mothers are very much involved in their children's success and failure and they compare their children's achievements to other children and encourage them to compete much more often than B-type mothers do (Thorensen, Patillo, 1988).

There is a quite common view based on case studies especially among psychodynamically oriented or psychoanalytic authors to interpret the phenomenon of ambitious mother as the mother's identification with the child (Lebra, T; Lebra, W.P. 1986).

Another slightly different view states that the mother imposes dependency upon the child due to her heavy dependence upon him for gratification of her own needs. In this case the mother's self-worth is in close contact with the child's success. Still later in life the mother finds self-validation in the social successes and professional accomplishments of her child so she expects performance from her child in satisfaction of her own ego needs. The child is an extension of the mother's ego (Mitchell, 1976).

Looking at it from the child's perspective this can mean that the child's ambition is an acceptance and reflection of the mother's ambition deriving from her discontent with her own life, many times with her marriage and husband. The child identifies with the mother's needs and tries to satisfy them (Fenichel, 1966).

According to these there are two basic types of ambitious mothers: one is the narcissistically expecting parent and the other is the parent who imposes her own unobtained ideals

on the child. But it is important to see that being an ambitious parent does not necessarily means competition through the child.

Interestingly enough there are only anecdotical statements about parents competition through their children like Friday's (1985). She describes how sibling rivalry takes the form of rivalry among parents through their children's achievement. "Another form of competition within the family is cross-generational. Sisters and brothers who never resolved problems of sibling rivalry often pass them on. Their children become pawns, stands-ins for their parents' competition. You see it all the time at family reunions. Grades earned at school, pictures painted, medals won in races, all are brought out and compared by the parents in front of the children, the aunts, uncles and grandparents. Nothing the child does is valuable in itself. Its value is in the eyes of the aunts and grandmothers. How does it stack up in comparison with the feats of the cousins? That is what matters."

Purpose of the study

The purpose of our study was to investigate how mothers think about the role of motherhood in their life in connection with their motive to compete with other mothers at the field of their children's development. We tried to reveal what kind of fields of competition are significant in the interviewed mothers' life and what significance competition about motherhood has among them in connection with the extent motherhood means a source of self-esteem or success in the respective mothers' life or with other words to what extent the mothers' success needs are met through the child. We also wanted to reveal what kind of concepts mother have about competition in general. As our study with Pirkko Niemelä from the University of Turku is cross-cultural we tried to reveal the similarities and differences between the Hungarian and Finnish mothers' accounts based on the idea that different societies provide a different environment for competitive behavior and also create different opportunities for women to achieve at different fields of their life. Basically our assumption was that the less opportunities the mother has to achieve success at other fields of her life but motherhood, the more probable will be that the mother wants to express herself through her children and wants to achieve success through the child. Or in another way the more the mothers sacrifice a possible career to devote their talents to the task of raising up children the more they will consider the child's success (also in competitive sense) to be important.

Subjects

We studied 19 Finnish and 18 Hungarian mothers' ideas who have 18 years old children. There were two basic reasons for choosing mothers having this age children. First of all in Pirkko Niemelä's longitudinal study with Finnish mothers the children were already at this age, but not only from this practical point it was reasonable to ask mothers about their competitive feelings concerning motherhood at this point but also from theoretical point of view. Being a mother of a 18-years-old child gives a kind of long-term perspective on the role of competition in the subjects' life as mothers and in the course of their children's development. At this point it can be already the topic of self-reflection how competition influenced mothering.

The Hungarian mothers' mean age was: 45.7 (between 42-56). 15 of them were married, 2 got divorced and 1 was a widow. 2 of them had 3 children, 12 of them had 2 children and 4 of them had 1 child. They are all highly educated, working mothers. The Finnish mothers' educational level was not so homogeneous as the Hungarians'.

Method

We used two different methods in the same setting: a questionnaire on the relationship of motherhood and womanhood and the ideal mother elaborated by Pirkko Niemelä and used in her longitudinal study and an in-depth interview. Our quantitative data gathered by the questionnaire and also gained by the analysis of the interviews are summarised in Pirkko Niemelä's article "Competition among Hungarian and Finnish Mothers".

In the interview one main theme centered around the question: what areas of life are the main source of self-esteem for the mothers. We explicitly asked about the following areas: motherhood, being a spouse, household, profession, friendship, relationship to own mother, relationship with relatives, outlook and other areas that are conceived to be important for the mother. The other main area of inquiry was competition. We again explicitly asked about competition among women at the field of career, femininity, in being a spouse, in taking care of their parents, in outlooks and also about competing as a mother. In this respect our standard questions were: Do mothers compete about their child's success, behavior, outlooks, about pregnancy, child birth, breast feeding, child care, or other things. We also asked the mothers to mention on what areas they win and lose.

The Finnish mother's answers were translated into English and so they became comparable with the Hungarian ones. However, the Hungarian interviews were in general longer and investigated more in detail the ideas about competition than the Finnish interviews. This article concentrates on the results of the qualitative analysis of the interviews.

Results of the qualitative analysis

To analyse the interviews we collected all the utterances that seemed to be relevant from our research perspective. The meaning of the utterance occasionally lied in the utterance itself, but in general the interpretation was made in relation to the context from which the utterance was taken. All references concerning motherhood, relationship with the children, competition at certain fields of life, competition with other mothers and competition in relation to the child were taken from the transcripts. We also collected all the references to emotions and typical behaviors concerning mother's competition. By grouping these statements in the form of selected quotes and constantly comparing them to their context, basically to what is said in the rest of interview, and to other mother's statements within the national group and between the two different attitudes towards competition through the child. In our procedure of analysis we followed the method of phenomenography (Marton, 1988). The results are manifold but in this paper we try to concentrate just on some salient ones that emerge in connection with the theme of competition like the need for achievement as a motivation, the feeling of envy as an emotion and the boasting as a kind of competitive behavior. We also set up four different attitudinal types among mothers concerning competition on the basis of the content and quantity of utterances in connection with competition in general, with competing as a mother with other mothers directly and competing somewhat indirectly through the child. First we describe the results concerning achievement, which will be followed by the four attitudinal types and finally we report on the occurrence of the theme of envy and boasting in the interviews.

1. Attitude towards achievement

It is very important to differentiate between high achievement motivation and competitiveness. Most of the time even the psychological literature does not make a clear distinction between the two. Basically high achievement motivation means that the result is important for the person concerned in itself, as an absolute entity, while competition around achieve-

ment means that the result is important in relative sense, the difference between the own results and the comparative party's results become salient.

Asking the mothers about competition the notion of achievement came very much into the foreground pointing to the fact that these notions are most of the time mixed in our mind. Here there were very important differences between the two groups. In the Hungarian group all the mothers went into details about the theme of achievement (100%), whereas in the Finnish the majority of them (14 out of 19=70%). But if we examined the statements concerning achievement more thoroughly there was still a very important difference between the two groups, namely that the majority of Hungarian mothers referred to the importance of the achievement (basically academic) in their own life (15 out of 18=82%) and their own children's life (100%) while among the Finnish mothers just the minority of them (4 out of 14=28%) referred explicitly to the importance of their own children's achievement and even less emphasized (2 out of 14=14%) the importance of achievement in their own life. They mentioned for instance school achievement as something that is important for other mothers.

The type of the Hungarian interviews concerning achievement can be characterised by the following interview excerpt:

> *"At the end of my studies I got a medal as I was always excellent at school ... At may workplace I also got a medal for being an excellent worker... I am maximalist, I want my children to achieve very well." (Hungarian Interviewee 4.)*

> *"Achievement has been always important for me. It was also important for my parents in my home. It is important in connection with my students and children too. I always tell everybody that you should fight and learn and develop yourself." (Hungarian Interviewee 10.)*

The Finnish mothers even if they mentioned the importance of achievement in their and their children's life they were much more indirect:

> *"Sometimes I think of managing my own shop where my success depends on how much I work and how well I can sell to the clients ... My son has six friends and they do very well at school. They are all very talented." (Finnish Interviewee 17.)*

It seems that the pressure to achieve and make their children an achiever is much more intensive for Hungarian women/mothers than for the Finnish counterparts or to put it in another way Hungarian women experience achievement much more like a necessary and inevitable requirement in life.

But not all the mothers who have high achievement expectation towards themselves and/or their children are competitive in general or competitive as mothers.

2. Competitiveness

Our results revealed that it is impossible to separate the question of "competing as a mother" from the general competitiveness of the mother as a person. These two are very much interwoven. According to the interviews there are different combinations defining different types of mothers.

2.1. Competitive as a person – competitive as a mother

In our interviews the previous hypothesis – stating that those mothers compete who are not satisfied with other important fields in their life, so they become competitive around moth-

erhood as a kind of compensation – was not true to this group of mothers. According to the results those women who have a competitive character, who enjoy competition and compete in their femininity just like in their professional life are also competitive as mothers. They want to be "number 1" mothers too. (Utterances in the interview both concerning competitiveness and competing as mother).

> *"Competition in my opinion keeps you energetic and alive. It inspires to develop ourselves, it helps to reach our potentials ... It is very important how the children achieve. I always keep an eye on their academic position at school. I think it belongs to be a good mother." (Hungarian Interviewee 5.)*

These mothers want to be winners at every important field in their life so the child's success reflecting in other mothers' eyes becomes a narcissistic pride and the child's failure is a kind of narcissistic injury. This starts at the very beginning of their motherhood and probably lasts forever.

> *"Imagine that when I gave birth to my daughter the doctor threw me out of the hospital one day earlier because they dared to tell me that MY CHILD had got jaundice and sore throat, you know. I was so hurt, how come that MY CHILD got ill when all the other mothers had a strong baby. I told it to everyone." (Hungarian Interviewee 4.)*

> *"My older son will have his verbal entrance examination to the university tomorrow. If he will be admitted I will feel myself very well. This is extremely important for me. It would be such a failure for me if he does not get in. But if he gets tomorrow 30 points and wins I can be self-confident that I am a perfect mother because I did it better than other mothers. I let him free and still he wins." (Hungarian Interviewee 17.)*

These competitive women not only compete with other mothers but also with their husband, with the father, around who the "better parent" is.

> *"Even if I work a lot in the radio and also in the local council and come home late and even if my husband is the one who deals more with the children they still love ME better. My husband often says somewhat defeatedly that 'even if you give them just plain bread and butter' they still choose you'. Because I am better in getting close to them." (Hungarian Interviewee 17.)*

There is an intensive competition around who "the better mother" is with their mother-in-law or even with their own mother.

> *"When I arrived to pick up my son to my mother-in-law's place he was wearing a warm cap. It was sunny and warm outside so I decided to take the cap off. But my mother-in-law told it was cold. I became angry. I know better the needs of my own child and I would never give the control to her over my children." (Hungarian Interviewee 12.)*

Among the Hungarian mothers 5 (27%) belonged to this category while among the Finnish mothers we could identify only 2 (10%).

2.2. Not competitive as a person – competitive through her child

This group mothers were somewhat similar to that general image according to which those women compete through their children who are not successful at other fields of their life and seek for satisfaction through their children's accomplishments. With other words, the

mothers belonging to this group rather "bask in the glory" of their children and they help their children to be glorious by any means. They do not report about the importance of competition in their own, independent life, but they make their children compete for them. (Negative or "weak" utterances concerning competition in general or other areas of their life but utterances concerning the child's competitive value.)

> *"I am very satisfied with my daughter, I do not know if it is my merit or not ... When she was in the first grade every night when she was sleeping I checked her notebooks and corrected all the mistakes, I rewrote nicely what she wrote ugly. One day the teacher asked for my daughter's notebook because she wanted to show it to the parents as an exemplary work in the evening parent-teacher's meeting. My daughter's notebook was the most beautiful in the class ... " (Hungarian Interviewee 7.)*

> *"For example when my daughter was quite small for her age, someone would show a child of the same age who was much bigger! ... Now I think that my children have outmatched them in intelligence and growing-up ... My son is very intelligent boy ... his marks were always the highest there ... " (Finnish Interviewee 7.)*

Due to the fact that the Hungarian interviews were more detailed it was possible to see the psychological pattern behind this attitude at the Hungarian subjects. These mothers were high achievers and competitive at school and had been like that till they became mothers. From the interviews it seems that they "simply" transferred their own competitiveness to their children and the children's development became the central topic of their "fighting" spirit or with other words the children are some kind of continuation of their ego and they identify with their achievement. Although there are still small competitions in their own life those are not significant compared to what they gain through being a kind of "life coach" of their children.

Among the Hungarian mothers there were 7 (38%) mothers who belonged to this type, while among the Finnish mothers there were 5 (26%) who could be identified like that.

2.3. Not competitive as a person – not competitive as a mother

This pattern is basically the same that we found with Pirkko Niemelä in our quantitative data, called "I do not compete but other mothers do". Within this group there are basically two subtypes of mothers: A. High achievement motivation – low motivation to compete; B. Generally low motivational level.

To the first subtype (A) belong those mothers (3 Hungarian=16%; 3 Finns=15%) who set up high achievement standards for themselves in their own life, they have the idea that it is good if the children also have high standards but it is basically the child's responsibility if he/she meets them or not. They also share the responsibility for their children's development with the children themselves. If the child is happier without exceptional achievement then it is also acceptable for them. Their accounts miss the emphasis on the relative or competitive value of children or their achievements and development. (Utterances concerning achievement, lack of spontaneous utterances concerning competition or negative statements.)

> *"If somebody has a profession then she has to love it. I find my job very interesting and I am happy when something works out well, when we solve something. Then I go home to my little family and listen to what happened with the children. They both like to play music for their entertainment ... My older son*

started the university this year but he could not pass an exam. Now he changed faculty. I hope this will work out well for him." (Hungarian Interviewee 15.)

The other (B) group of mothers (Hungarians:3=16%) seem to be not motivated very much at any aspect of their life, no emphasis on achievement, no emphasis on competition at any field of their life, but they mention, just like the previous group, examples for other mother's competition.

"There are no successes, no failures just ordinary days. Every day is ordinary. The days are coming and going one after another, there are recurring problems that have to be solved. There is no sadness or joy worth to mention. No difference. The work has to be done both at my workplace and at home ... There is no problem with my son at school. But he studies for himself not for me. To compete with his achievement would be all in vain, he is he, I cannot change him ... Other mothers might think they can if they compete." (Hungarian Interviewee 14.)

As there were less information in the Finnish interviews about personal motivation in the Finnish mothers' case we grouped into subtypes only the clear cases. We rather took them as they introduce themselves in the interview: "I do not compete but other mothers do". According to the qualitative analysis 7 Finnish mothers belonged to this group (46%), altogether 10 Finnish mothers, more than half of them (52%) are there in this compared to the Hungarians' joint 32%. In the Finnish group's case while there are negative statements concerning own competition but there are detailed references to other mothers' competition it seems that these Finnish mothers are very sensitive to competitive situations and rather deny their own competitive desires than lack them.

2.4. The differentiated personality

This type was found only in the Finnish interviews. Mothers concerning the theme of competition emphasized the impossibility of comparison and the impossibility of telling who is better who is worse as everybody is a unique personality and in this respect not comparable. "People value different things" (F. Interviewee 1.) could be the motto of this type of person and mother.

"I would say that I have always been myself. I was brought up like that; you are you and that is that." (Finnish Interviewee 2.)

"Things are not the same for everyone, people do things according to their own taste. You cannot compete in things like taste..." (Finnish Interviewee 1.)

In the Hungarian sample there was no such "type". It seems that comparison or competition as a kind of information concerning the self is present in every Hungarian mothers life while among Finns there are mothers, although their number is not big (2=10%) whose identity do not belong to a comparative/competitive information. This points to the fact that a kind of individuality, gained by the realization that everybody has its own unique life history and personality, at least appears in the Finnish sample but not in the Hungarian.

3. Hungarians' envy

In the transcripts all those utterances were collected that were in connection with emotions concerning competition. Among these mentioned emotions envy was the most frequently mentioned. But there was a difference in the occurrences of envy in between the Hungarian

and Finn mothers. Among the Finns only 5 (26%) mentioned envy in certain context but among the Hungarians 10 (55%). In both groups there were mothers who mentioned their own envious in certain situations. Still Hungarians seemed to be much more "envy conscious" and mentioned the destructive consequences of envy much more in detail. Hungarian mothers reported about envy even between themselves and their husband and stressed its aggressive and deteriorating aspects.

> *"My husband envies my professional successes rather than happy about them. He rather raises obstacles than help me. If I have to work during the weekend he always rushes into my room with some false reason and starts to quarrel, provokes me just to prevent me from working." (Hungarian Interviewee 8.)*

Finns, if they mention envy, they tell about the fact, that this emotion emerges in certain situations, for instance when someone is slightly better than us, but just in one case they mention about actively ruining the rival.

> *"Like when too many people doing research and the other person is slightly better then you are. If you find about this you become a bit offended and envious." (Finnish Interviewee 2.)*

4. Finns are boasting

If the interviewees mentioned behaviors or actions in connection with competition they were also collected. In the cross-cultural comparison the phenomenon of "boasting" proved to be interesting. There were altogether 7 (32%) Finn mothers who mentioned boasting as a form of competition or a typical competitive behavior among mothers. On the other hand there were only 2 (11%) Hungarian mothers who mentioned the same. Finns even define how competition and boasting relates to one another.

> *"If you compare and boast it is competition." (Finnish Interviewee 14.)*

While the consequence of envy according to the Hungarian mothers is destruction, the boasting Finn mothers report – even if they attach to it a negative value most of the cases – from psychological point of view is rather emphasizing the person's own good sides or achievements and in this respect it is rather a self-building strategy than an active destruction towards others.

> *"Some boast how well their kids do, how they participate in chores at home and how busy they are with their hobbies." (Finnish Interviewee 6.)*

It seems however that in Finland it is not very accepted if parents are explicitly proud of their children or talk about it publicly which calls the attention to an idea that needs further examination that perhaps they are cautious not to evoke envy in others.

Discussion

There were no women among our Finnish and Hungarian groups who did not mention several fields of competition among women and who have never experienced competition among mothers. We can say that competition to a certain extent is present in every mother's life either as a self-experience or as an environmental experience. This means that mothers have to handle this in their own most satisfactory ways.

For most of the mothers their children are a piece of work – something they have invested a great deal of time and energy in shaping and guiding. Thus they experience their children's failure as their own failure as a mother. From our data it seems that Hungarian mothers in general feel more pressure about being good and achieving well at every field of their life. They seem to be more openly keen on competition as mothers too, than Finns. One explanation can be the next.

In her article Pirkko Niemelä wrote about the amount of support Hungarian and Finnish mothers get from their husband around child-care. Although all Hungarian mothers are working mothers they do not get enough support from their husband around child-care. Due to this they feel greater responsibility for the child's developments it is not shared so much. The child's success and failure in this sense is perceived to be much more as the mother's success or failure. In case of failure the shame reflects on the mother and also creates guilt on the mother's side. For those mothers who consider their main task in life to raise children and if it does not come out right according to their inner or some outer standards, who else can they blame? This is such an emotional burden that mothers try to avoid it and rather urge their children for to be successful and being successful often means being better than others.

Another explanation can derive from the fact that the Hungarian and Finnish school system is quite different in competitiveness. In Hungary the school system is very selective and competitive. The mothers in the Hungarian sample are all highly educated. For them it is natural to think that their children would be the same. But to get successfully through the Hungarian educational system mothers feel and emphasize in the interview that they have to train their children being able to meet the demands, in a sense to be competitive.

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EMPATHY AND CREATIVITY

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INTRODUCTION

The general goal for dance seems to support the whole personality, combining the kinesthetic, cognitive, and affective factors. Reaching these goals also means the development of empathy and humanity. Dance is a means for creative imagination, and self-expression. The beginner is more controlled and formal, but the experienced dancer trusts his strengthened sense of aesthetics and the figuration of creative elaboration.

Controversary international results in self-esteem have been found (Trigg 1978; Bakker 1988, 1991; Kozlowski 1993; Bibik 1993). Bakker (1991) studied temperamental and motivational traits of 59 female ballet dancers, aged 11-16 years during a two years follow-up. Dancers were strongly achievement motivated, and exhibiting less favourable self-attitudes. Trigg (1978) studied 41 active students of modern dance and noticed that there was no significant association of creativity and self-esteem and that modern dance did not increase self-esteem either.

Findings supported the idea that preballet education may be an effective tool for enhancing self-concept among preschool children (Kozlowski 1993).

Dancers seemed to be more introvert (Bakker 1988; 1991; Kincel 1986) and have better internal locus of control than non-dancers (Adame et al. 1991; Radell et al. 1993). Dancers have a good body awareness (Adame et al. 1991; Bakker 1988; 1991; Overby 1990).

1. Empathy

Empathy is an important tool for a ballet dancer. The dancer has to be able to express the language of art with the whole body. In projecting a role, a dancer has to try to convey to the audience what is central and essential in the role. To be able to express the direction that feels right requires strong self esteem of the dancer. The dancer can only rely on himself and his intuitive belief of being right. An active and long-lasting empathy, in fact, is possible only with a healthy self-esteem. According to Kalliopuska (1983a; 1983b), empathy can be considered a creative process. It requires the ability to place oneself emotionally "in someone else's shoes", and to regress in the service of ego. Kris (1950), among others, considers empathy to be similar to an artist's creative process. Adaptive regression, within the limits set by the self, provides the space for the functioning of the subconscious and rejection impulses. The purpose of this function is to allow the individual to adapt to certain situation. Empathy requires a receptiveness to impressions (i.e., sensitivity) and, in addition, a momentary identification. These processes are then followed by a process of distancing. This distance is needed because the information obtained on the level of impressions must be cognitively analyzed on the more abstract level of the sphere of experiences of another person. This distancing differentiates empathy from sympathy. To be able to "abandon" the limits set by the ego, as a result of the regression in the service of ego, and to constrict them again following the regression, requires flexibility and control over the ego. Imagination

and self-expression requires an ability to move flexibly from one image to another. Fantasy is a capacity of a developed self. Fantasy is a forum for creative elaboration. Though empathy is considered an important indicator for mental health, self-esteem may also be viewed as a sensitive indicator of mental health (Kalliopuska 1983a, 1989).

The basis for a solid self-esteem lies in the fact that one appreciates, accepts and respects oneself (Kalliopuska, 1983a, 1984, 1987). According to a holistic concept of empathy (Kalliopuska, 1983a, 1983b) empathy is a holistic process in which several components are present: the affective, the cognitive, the physiological and the kinaesthetic components. Sensitivity is the main affective component; in other words, the capacity to receive emotions, to be on the same wave length. In empathy a person identifies himself with another person«s life and shares for a moment his ideas and emotions. The cognitive components mean the identifying and evaluation of emotions, the capacity to take another person«s role or viewpoint. Empathy requires seeing the situation from a distance – being too close and letting oneself be carried away with another person«s emotions is sympathy, not empathy. Empathy requires also the capacity to describe the person in question, i.e., the impression obtained of him. Empathy includes also kinaesthetic and physiological factors. The kinaesthetic factors are, e.g., mimics, gestures, changes in the body position, and voice. Blushing, caused by shame or paleness as a result of fear, i.e., physiological reactions, could be mentioned as examples of physiological factors. Each component functions as an independent dimension. When the central factors of empathy are known, it is easy to promote the development of empathy in another person.

2. Creativity

Creativity is defined by Torrance in terms of Figural Fluency, Flexibility, Originality and Elaboration. Noncreativity is defined in opposite attributes of creativity: conventionality, rigidity, conformity and incompleteness. Originality or creativity in common is defined in terms of "productive imagination" as contrasted with "reproductive imagination", as found in most intelligence test items. According to Guilford (1962) the creative disposition is made up of many components including fluency, flexibility, and originality of thinking; sensitivity to problems; ability to transform the known; cognition, memory; and some non-ability variables. Andrews (1961) said creativity is viewed as "... a positive self-integrated force ... a process of self-actualization, an expression of being."

According to Carlson (1961) we can promote creativity in the classroom with experience, the creative movement, the creative occasion, the miracle of words, and the interrelationship of knowledge (seeing relationships). The creative being (Carlson 1960) grows more powerful when the learner is confronted with problems, situations and challenges requiring action and reaction.

Davidson (1962) mentioned that artists have greater mobility in the shifting between self and environment. Thus, there is in the creative personality a constant fluctuation between progressive integration and regression states. This primitivity causes the artist to be confused with a mentally ill person. However, the regression of the creative personality is not the same as the infantile regression of the schizophrenic, because the regression works in the service of ego. Giovacchini (1960) depicted the creative process. Neither the primary nor the secondary process alone accounts for creativity. When the former predominates, ability to work falters, psychotic trends appear, and panic reigns; when the latter regains ascendancy, its defensive quality may produce mechanical, routine thinking chained too closely to a literally conceived reality. An ability to tolerate both, to extend the boundaries of the ego so as to include portions of the id within it, and to synthesize them is necessary for creativity. As ballet director Jorma Uotinen (1995) says: A versatile programme

requires flexibility and adaptability from dancers as they have to rehearse and perform works of different styles simultaneously. Dancers should be both physically and mentally agile and be ready to switch from one style to another.

3. The relationship between empathy and creativity

What is the relationship of empathy to creativity? The similarities between empathy and creativity can be observed in the artistic process which includes deeply experiencing shared feelings and attending to another's outlook on life. Empathy requires emotional contact with complete strangers as well as the ability to perform regression in the service of the ego. This ego-controlled regression allows a certain amount of openness and spontaneity. The psychoanalyst Ernst Kris (1950) has described within the framework of the artist's creative experience. According to this model, empathy is much more than simple intuition, calling for adaptive regression within the limits of the ego, a process in which the ego's task is the adaption of the individual to the situation with the labours of the unconscious and the rejection of inappropriate impulses. Here also empathy requires momentary identification, followed by a period in which cognitive functions attempt to integrate the knowledge received from another's world of experience at an emotional level. The temporary relaxation of ego-boundaries into regression, and their knitting together at its conclusion, require an elastic and healthy ability of ego-control. It is in this way that the ego gains sufficient emotional content and conscious control. Through the activities of the ego, we can speak of empathy as a creative process.

Olden (1958) described empathy as an individual's intuitive ability to feel the same way as another feels. Empathy is expressed as the kind of sensitivity which is not in the service of the individual's self-centred, narcissistic needs: empathy functions as the primus motor during the creation of mature object relations. Empathy displays itself as a signal emotion from which intuition arises. Because understanding occurs extremely quickly, the empathetic process appears to be a flash of insight or intuition.

The boundary between insight and empathy is not theoretically clear. According to the general view, true insight is formed from material produced by empathy. Empathy is one of the significant mechanisms in which we attempt to knit together the gap between thought and experience (Szalita 1976). It has been described as an expansion of self-knowledge which decreases the distance between perception and insight.

Purpose

The purpose was to explore empathy and self-esteem of children talented in various ways. Different Finnish study samples were used: junior Finnish National Opera Ballet dancers from Helsinki, Vantaa Child Ballet juniors, especially special talented group (the first class) and dance master students from Kuopio as well as arts and expression gymnasium students.

The purpose of this study series is to examine the effects on personality of the active pursuit of ballet and self-expression as a hobby. We supposed that junior ballet dancers and self-expressionists have better empathy and self-esteem level, and more creativity than the comparison groups. Ballet dancing exercise can promote effectively a dancer's holistic empathy: its affective, cognitive, kinaesthetic, and physiological components holistically (Kalliopuska 1983a). Other arts and self-expression have the same effect.

SUBJECTS AND METHODS

The I Study

Subjects were 62 dancers of the Finnish National Opera junior ballet, 44 girls and 18 boys. The youngest was 9 and the oldest 17 years old. One third of the dancers were 11 years or younger. Majority of them lived in the urban area. 61% of the students were from social group 1 (highest), 27% of social group 2 and only 12% of social group 3. None of the dance students came from a family in social group 4. Social group 1 is then over-represented while the other groups are under represented.

The students completed following questionnaires:

1. Battle's Self-esteem Inventory Form B, a version for younger ballet dancers (aged 9 to 12 years), and the Battle AD version for older dancers
2. Fitts' Tennessee Self-concept Scale
3. Two derived factors from the Coopersmith's Self-esteem Inventory
4. Ten items of the Rosenberg Self-esteem Inventory
5. The modified Mehrabian and Epstein Empathy Scale
6. A questionnaire on hobbies and other background variables
7. The Rorschach test
8. The Figural B Form of Torrance Creativity test, called Picture Completion.

About 2 or 3 hours were spent on the tests during rehearsal time. Comparison with 4283 school students and with 1381 junior baseball players was made.

The II Study

The study material from Vantaa Child Classic Ballet where the two head dance masters had the Russian dance education, consisted of 63 junior classic ballet dancers; ten very talented students took part the special first class. The test results of ten most talented students are reported here separately.

Tests used were:

1. Battle's Self-esteem Inventory Form B, a version for younger ballet dancers (aged 9 to 12 years), and the Battle AD version for older dancers
2. Two derived factors from the Coopersmith's Self-esteem Inventory
3. Ten items of the Rosenberg Self-esteem Inventory
4. The modified Mehrabian and Epstein Empathy Scale
5. The Assertiveness Self-Report Inventory by Herzberger, Chan and Katz
6. The Emmons Narcissism Scale
7. A questionnaire on hobbies and other background variables
8. The Zulliger test
9. The Figural B Form of Torrance Creativity test, called Picture Completion.

The III Study

16 students (the median age 21 years in the first test) started studying dance in Kuopio in order to become dance masters after four years of training. Only eleven students completed the dance school. Tests used were:

1. The Battle AD version

2. The modified Mehrabian and Epstein Empathy Scale
3. The Assertiveness Self-Report Inventory by Herzberger, Chan and Katz
4. The Emmons Narcissism Scale
5. A questionnaire on attitudes and other background variables
6. The CMPS -test for measuring motivation
7. The Zulliger test
9. The Draw-A-Person test

The IV Study

As part of my arts project, Slevinsky (Kalliopuska 1990) studied 30 girls, aged 17-19 years of an arts and expression gymnasium and 29 students of an ordinary gymnasium. The following tests were used:

1. The Battle AD version
2. The modified Mehrabian and Epstein Empathy Scale
3. A questionnaire on attitudes and other background variables
4. The Rorschach test
5. The Hummel Identity Status Interview.

RESULTS

The I study

Findings

In comparison with 4283 school students and with 1381 junior baseball players, the 62 ballet dancers from the Finnish National Opera (44 girls, 18 boys, ages 9 to 17 years) were more interested in arts and self-expression.

1. They were more empathetic and sensitive than Finnish baseball players and their agemates generally. Girls were more empathetic and sensitive than boys as usually in Finnish samples (*Table 1*). The boys' scores, however, vary greatly from 58 to 90 points, because of two boys' very low results. One could assume that ballet dancers, given the nature of their work: the constant training of the capacity to express emotions, had better capacities for empathy than their controls.
2. Younger and older ballet dancers had better self-esteem than comparing groups had (*Table 2*). Compared with the American norms, the mean result for ballet dancers indicates a very high self-esteem. The mean for self-esteem of other groups are either average or high. The comparison was based on the total score. A very low self-esteem may reflect the feeling of inferiority, self-blame or even self-hatred.

   Among dancers M% (human movements on Rorschach protocols) correlated with self-reported empathy significantly, r = .28, with sensitivity – the main affective component of empathy, r = .42, and with creative elaboration measured by the Torrance test, r = .44. The self-reported empathy is also related positively to creative elaboration, r = .49. The Urist Empathy Index (projective autonomous empathy level) correlated with self-reported empathy (Mehrabian and Epstein Test) negatively, r = -.36. However, the index has a significant correlation with the dance teacher's appraisal on the dancing, r = .41. The Battle self-esteem score correlated significantly with school marks, r = .79, with creative elaboration, r = .23, and with Originality % (very rare

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Table 1. Empathy and sensitivity for junior ballet dancers, junior finnish baseball players, and pupils from lower and higher levels of comprehensive schools

	Empathy		Sensitivity	
	M	*Sd*	*M*	*Sd*
Total				
Ballet dancers	77.2	8.2	14.7	2.9
Junior baseball players	67.3	7.6		
Pupils, lower level	69.4	7.9	13.7	2.7
Pupils, higher level	71.2	7.2	13.6	2.5
Girls				
Ballet dancers	79.8	6.6	15.7	2.2
Junior baseball players	71.0	6.8	14.6	2.3
Pupils, lower level	73.0		14.6	
Pupils, higher level	76.1		14.7	
Boys				
Ballet dancers	72.0	8.9	12.5	3.1
Junior baseball players	64.7	7.0	12.6	2.9
Pupils, lower level	66.0		12.9	
Pupils, higher level	66.1		12.4	

Table 2. Self-esteem for junior ballet dancers, junior finnish baseball players, and pupils from lower and higher levels of comprehensive schools

		Self-Esteem	
	N	*M*	*Sd*
Total			
Younger ballet dancers	36	23.4	3.5
Junior baseball players	524	19.4	4.2
Pupils, lower level	2380	21.5	3.4
Older ballet dancers	26	31.7	4.3
Pupils, higher level	3768	26.4	5.6
Girls			
Ballet dancers		24.2	3.4
Junior baseball players		18.9	4.3
Pupils, lower level		21.9	
Older ballet dancers		31.9	3.6
Pupils, higher level		26.2	
Boys			
Ballet dancers		22.5	3.8
Junior baseball players		19.7	4.1
Pupils, lower level		20.9	
Older ballet dancers		31.8	5.9
Pupils, higher level		26.6	

and unique answers on Rorschach protocols , r = .60. M% seems to be a quite good empathy indicator on Rorschach protocols having significant correlation with sensitivity, empathy, and creative elaboration.

3. Creativity was measured with the Figural form B scale of the Torrance creativity test called Picture Completion. The factors measured were flexibility, originality, elaboration, and fluency. Flexibility identifies ability to make shifts in thinking or to change categories of response. Fluency represents the facility for generating information based on what an individual remembers. Originality is the ability to provide unique and rare responses to a stimulus. A significant difference between boys and girls was found only in Flexibility among dancers (*Table 3*). Elaboration was significantly and positively related to empathy, and dancers got higher scores on Elaboration than baseball players; it seemed to be very important to elaborate new ideas and trust own viewpoints.

Table 3. Junior ballet dancers' creativity

Torrance test:	*M*	*Sd*	*F*
Flexibility			
Girls	*30.0*	*5.5*	
Boys	*34.3*	*4.9*	*8.4****
Originality			
Girls	*0.9*	*0.3*	
Boys	*1.0*	*0.3*	*0.4*
Elaboration			
Girls	*3.0*	*1.4*	
Boys	*2.3*	*1.4*	*2.6*
Fluency			
Girls	*8.3*	*1.1*	
Boys	*8.7*	*0.8*	*1.5*

The II Study

The study material from Vantaa Child Classic Ballet consisted totally 63 junior classic ballet dancers; ten very talented students took part the special first class. Their age range was between 11-19 years.

Findings

1. Classic ballet seemed to promote empathy and sensitivity. The talented junior ballet dancers in Vantaa Child ballet had as good empathy level as ballet dancers in National Opera had, and much better empathy compared with the junior baseball players and agemates in general (*Table 4* and *Table 1*). The group was also very homogeneous. They also reached almost the same sensitivity level than junior dancers in National Opera School.

Table 4. Empathy and sensitivity of talented junior ballet dancers in vantaa child ballet, junior finnish national opera ballet dancers, and dance master students

	Empathy			*Sensitivity*		
	M	*Sd*	*Md*	*M*	*Sd*	*Md*
Talented junior ballet dancers in Vantaa Child Ballet	*76.9*	*6.0*		*14.1*	*3.1*	
Junior ballet dancers in National Opera	*77.2*	*8.2*		*14.7*	*2.9*	
Dance master students: I Measure	*80.6*	*8.9*	*84.0*	*15.3*	*3.0*	*17.0*

Table 5. Self-esteem of talented junior ballet dancers in vantaa child ballet, junior finnish national opera ballet dancers,and dance master students

		Self-Esteem		
	N	*M*	*Sd*	*Md*
Talented older ballet dancers in Vantaa Child Ballet	*4*	*31.5*	*6.0*	
Older junior ballet dancers in National Opera	*26*	*31.7*	*4.3*	
Dance master students: I measure	*11*	*31.3*	*4.8*	*32*

Among younger talented dancers' self-esteem was as high as among junior dancers in National Opera and even among the dance master students in Kuopio, but self-esteem level was much better in comparison with Finnish norms (*Table 5*).

The level of self-assertiveness was dramatically higher than any other group had. Compared with Finnish norms (N =3768), junior track and field athletes, Finnish baseball players, ice-hockey players, and even dance master students, talented ballet dancers had better self-assertiveness (*Table 6*).

The III study

Dance master education has modified students' personality and behaviour patterns. Those persons who had a enormous or very good success in dance studying (remarks), got their body image (Draw-A-Person) more adequate than it was at the beginning. The curriculum

Table 6. Self- assertiveness of dance master students, talented junior ballet dancers in vantaa child ballet, and junior finnish national opera ballet dancers

		Self-Assertiveness		
	N	*M*	*Sd*	*Md*
Talented ballet dancers in Vantaa Child Ballet	*10*	*120.1*	*10.5*	
Dance master students: I measure	*11*	*116.9*	*8.1*	*120*
Pupils, higher level	*3768*			
Girls		*104.5*		
Boys		*100.7*		
Older junior baseball players	*857*			
Girls		*100.0*	*12.2*	
Boys		*100.1*	*12.6*	
Track and Field Athletes (13-15 years)				
Girls	*29*	*106.1*	*12.8*	
Boys	*29*	*99.2*	*14.1*	
	58	*102.6*	*13.8*	
Ice-Hockey Players (11-12 years)				
Boys	*23*	*105.3*	*11.9*	

Table 7a. The change in self-esteem, self-assertiveness and narsissism during four years training

	Self-Esteem		Self-assertiveness		Narcissism	
Change	M	Sd	M	Sd	M	Sd
I Measure	31.3	4.8	116.9	8.1	8.6	7.2
II Measure	34.0	7.5	118.5	10.2	12.2	17.1

Table 7b. The change in empathy and sensitivity during four years training

	Empathy				Sensitivity			
Change	M	Sd	Md	range	M	Sd	Md	range
I Measure	80.6	8.9	84.0	65-91	15.3	3.0	17.0	9-18
II Measure	82.3	8.0	80.0	67-95	15.4	3.0	16.0	9-18

was very heavy and diversified; everybody increased their self-esteem during the dance education period. At the same time, a low score of self-assertiveness increased and a high score decreased. Totally narcissism and self-assertiveness increased slightly. Empathy also increased significantly (*Table 7a and 7b*).

The IV study

Findings

The self-esteem scores of the girls from the arts and expression gymnasium were significantly higher than that of the girls from the control group. Those students who attained an acceptable identity also evidenced a higher self-esteem. The assumption of a relationship between identity and self-esteem was also supported by this study. The girls from special gymnasium seemed to have a greater inclination for creativity than controls, but there were no differences in empathy between groups (*Table 8*).

Conclusion

Gifted dancers are empathetic and self-assertive and have good self-esteem as I have assumed, also the top-performers can be empathetic. The same results were shown in my studies among top-atheletes. In addition, the junior dancers' empathy had a connection with creativity and elaboration of ideas. These results also indicate that we should pay more attention to studying the processes of creativity, since empathy is also holistic process. We should perhaps start analyzing how the cognitive processes (perceptual thought, creative thought, inventive thought, metacognitive thought, performance thought and sensational thought in the cognitive spiral (Ebert 1994)) connect with refinement of the created images, with empathy and creativity.

Table 8. Empathy and sensitivity among arts and expression gymnasium students and controls

	Empathy M	Sensitivity M
Arts and expression gymnasium students	77.0	14.8
Controls	77.2	14.2

As Jorma Uotinen (1995) says: "At the beginning I only have a few ideas as to how the work should appear. These I pursue, but on the way the plan could change. Some theme or detail may develop quite by itself, so slowly the work begins to grow organically." Or in other words as Salme Sarajas-Korte said: "For the Finnish famous painter, Akseli Gallen-Kallela, symbolism was metaphorical pictures, deep and obscure ideas, blended images of primitive art, the wings of Assyrian and Egyptian angels of the underworld, sphinxes, lilies, swans, and visions of the cosmic universe".

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THE MOTHER'S EMPATHY AND THE INFANT'S DEVELOPMENT *

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The early parent-infant dyadic relationship depends on the sensibility and the given psychophysiological level of the child and on the other hand, on the sensibility, empathic readiness and communicative attitude of the adult member of the dyad (see: Ainsworth and Bell,1974, Camaioni,1979, Rondal,1980. etc.).

We agree the holistic description of empathy formed by Kalliopuska (1986, 1989.) By this conception the "Empathy is a coherent process within an organism. We may differentiate its physiological, kinaestic, affective and cognitive aspects." "During the empathetic process a person identifies temporarily with the ideas and feelings of another person. This identification is only momentary; a person enters into the role of another person, shares his thoughts, feelings and experiences. The person sets aside his own point of view for a while and takes another person's role and view. It is possible to gain personally and at the very moment experience information about another person to be evaluated. The next phase is developing distance; the subject matter is actively analyzed. The emotional aspects of information about another person leads to objective examination of the world." (1986. p. 1052)

Buda (1978.) in his theoretical summary on the empathy argues, that the psychological substance of empathy is the communication: the changing and codification of the common biological and conventional codes. So, the dialogue offers the best possibility to the realization of empathy in any interaction (pp.67-78). On the basis of this theory in the relation to the empathy and communication, explains that the good mother-infant relation forms a very sensitive network, and in opposite an unbalanced or bad mother-infant relation cannot form well a nonverbal network, or it will be confused. The above variances of the types of the dyadic interactions influence the development of infant's personality and way of his socialization (p. 132.).

For instance the association of the mother's empathy and the development of empathic skill and prosocial behavior of child were proved by number of authors (Feshbach, 1978, Silver, 1983, Tomkins,1984, see in: Halperin, 1989 etc.).

On the basis of the above empathy-conceptions, we suppose that the parental empathic skill plays an effective role in the parent-infant interaction and in the development of infant.

Our observations were focused on the verbal/vocal communicative behavior of the mother-infant dyad in different situations, in relation to the mother's empathy.

We supposed in our investigation, that the different level of the mother's empathic skill influences differently the early mother-infant interactions, especially their verbal/vocal behaviors.

We also supposed, that the mother's communicative attitude – in relation to her special empathic skill – can influence the process of her infant's social-cognitive development.

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Subjects

Sixty mother-infant dyads were studied. Thirty of dyads were followed longitudinally from the second month until the sixth year of children. The other group of thirty dyads were observed in the ninth month of infants.

Methods

The mother-infant interactions were observed in free- and structured (teaching) situations. The teaching situation was a common playing with a new object.

In the sixth year of children's life they reproduced the same short story, following the mother's relating.

The interactions were recorded in protocol and by tape recorder.

The DQ and IQ of infants were measured by the Brunet-Lézine Developmental Scale (1971, Farkas, Csiky, 1980.) and later by the Wechsler-test for children (HAWIK) (Kun, Szegedi,1972).

The sociability of children were examined by the California-test of Personality (CTP) (Thorpe et al.,1953), measured by György I., M.

The empathic skill of mothers were registrated by the Mehrabian's Scale.(1974)

We analyzed the relationships among the extent of mother's empathy and her communicative attitude and strategy of teaching in the early interactions with her infants.

On the other hand, there were examined some characteristics of infant's utterances (frequency, duration, articulation) and the level of its psychophysiological development, intelligence and sociability.

Table 1. Differences in the mother's emphatic skill

	n	*mean*	*t-test*
Total group	*30*	*68.18*	
low-score	*9*	*54.04*	*-8.65* [a]
high-score	*21*	*74.24*	

[a] $p<0.001$

Results

Taking the percentages of mother's empathic level, we have got two groups of over- and lower level of their empathic skill, in relation to the main percentage. There is significant difference between the "high-scoring" and "low-scoring" groups of mother's empathy. (See *Table 1.*)

The verbal behavior of mothers, with high-score empathy are characterized by more homogenous communication strategy. They made an effort to a dialogical interaction in all of the observed periods of their infant's development and also in the different interactive situations. In this group the mother's utterances are only namely more than the infant's vocal activity. This strategy supports the infant's participation to a vocal/verbal role-taking-type interaction.

In our follow-up study, we could see, that those mothers (with high-score of empathy) who made efforts earlier to the almost balanced dialogical communication with the infant, they follow their six-year-old child's relate by informations and dialogical strategies, like the response, question, completion and repetition.

This kind of mother's communicative activity correlates with her empathic skill. (See *Table 2.*)

Table 2. Differences in the mother's verbal strategy

Verbal behavior	high-score of empathy mean	low-score of empathy mean	Wilcoxon-test	t-test
Proportion of mother/infant utterances by extreme high ($\bar{x}$=78.5, n=11) and extreme low ($\bar{x}$=45.6, n=9) empathy				
9th month	1.9	3.2		11.05 [c]
12th month	1.8	3.5		9.35 [b]
Mother's verbal teaching strategy (n=30)				
6th year				
Information	19.2	17.7	3.88 [c]	
* Responding, completion	16.5	9.1	3.85 [c]	
* Repetition	11.7	7.2	3.02 [c]	
* Questioning	29.9	38.3	3.92	
Correction	4.3	7.7	2.68 [b]	
Negation	3.0	5.0	1.87 [a]	
Correlation of the mother's dyalogic-type verbal startegy (*) and their empathy	r=.6456 [b]	n.s		

[a] p<.05 [b] p<.01 [c] p<.001

In the other cases, those mothers, whose empathy are in lower level, made efforts overtalk their infants, in the first year of their life, and their verbal teaching behavior were characterized by more questions, informations, corrections and negations , during the story reproductions by their children.

The last mentioned kind of the mother's communicative attitude does not correlate with her empathy. (See again *Table 2.*)

In the following passage of our analysis will be collected some characteristics of the infant's behavior in relation to the mother's empathy. (See *Table 3.*)

Table 3. Effect of the mother's dialogic strategy (high-score empathy) on the infant's vocalization comparing with the infant's behavior, over-talked by mother (low-score empathy)

In the first year of life	high-score of mother's empathy	low-score of mother's empathy	Wilcoxon-test
in the free situation (n=30)	%		
more utterances	14.5		60.33 [a]
more emotional-charged vocalization	37.5		59.26 [a]
in the teaching situation (n=30)	r	r	
emotional-charged vocalization	.3922 [a]	n.s.	
smiling	.3217 [a]	n.s.	
orientative behavior	-.4737 [a]	.7914 [a]	
touching	n.s.	.6934 [a]	

[a] p<.05 (See the above mentioned data in: Sugárné Kádár, 1991)

Table 4. Development characteristics in the sixth year of infant's life (n=30)

	high-score of mother's empathy	low-score of mother's empathy	t-test
VQ	145.33	131.11	2.15 [a]
Sociability (CTP)	83.00	69.57	2.86 [a]
Self identity (CTPI)	41.78	35.40	2.01 [a]
Social-effectivity (CTP II)	41.22	37.65	3.66 [b]

[a] $p<.05$ [b] $p<.01$

As we can see in the *Table 3*, in the high-scoring group there is a significantly stronger relationship between the mother's empathy and the number of infant's vocalization, which is also significantly more than in the low-score empathy mother's group.

The number of emotion-charged inarticulate vocalization and the social smiling are also more in the free- and structured (teaching) interactions of the highly empathizing mother's group.

On the other side, the high-score of mother's empathy influences negatively the orientative behavior of the nine-month-old infant.

In case of the low-score of mother's empathy, the nine-month-old infant rather make an effort to the approach physical contact to the mother, than to the exploration and manipulation with any new object, during the mother-infant interaction. (See Sugárné Kádár, 1989, 1991.)

In our follow-up study, we could see, that those children, whose mothers, with high-score of empathy, made efforts to the balanced dialogical communication with their infants also during their first year of life and as we have seen above, later followed their children's relating by supporting dialogical strategy, those children show significantly higher level in their verbality (VQ) and sociability (CTP), including the Self-identity (CTPI) and social effectivity (CTP II). (See *Table 4.*)

Now we have to see, what the real relation is between the mother's empathy and the social-cognitive development of child, on the basis of the above analyzed vocal/verbal communication experiences of the mother-infant interactions. (See *Table 5.*)

The mother' empathy does not shows direct association with the level of the infant's FQ in the 6th and 12th months. But as we could see above, there is a strong relation between the mother's empathy and the emotional reaction, vocal- and explorative activity of infant.

However, the mother's empathic skill, in relation to her verbal teaching strategy shows a strong direct correlation with her 6th-year-old child's IQ and also with VQ .And further on, the mother's empathy, in relation to her communicative attitude and verbal strategy can influence the infant's socialization by his intelligence. This influence means, that the IQ, including the VQ has positive effects on the sociability and also the stability of Self.

The level of mother's empathic skill influences the social effectivity of child, by Its intelligence, but neither the extreme high-, nor the low-level of mother's empathy does influence significantly the Self-identity.

May be, the origin of the above data is also in the experience of the early interactions, in which we could see, that the strong mother's effort to the interaction, in relation to the extreme high empathy strengthens the emotional relation in the dyad, but it weakens the infant's own intentions, his orientative activity. On the other hand, the mother's weak effort to the balanced interaction, but characterized by the effort to overtalk, direct- and overcon-

Table 5. Correlations among the mothers' empathy and the infants' intelligence and sociability (n=30 dyads)

Age of infants	Mothers' empathy $\bar{x}$=68.18 s=11.04	Infants' FQ	
6th month	r=0.0178 n.s	$\bar{x}$=1.05 s=0.9	
12th month	r=0.1149 n.s.	$\bar{x}$=1.06 s=0.8	
6th year	r=0.3852*	IQ $\bar{x}$=137.64 s=15.42	
		CPTI $\bar{x}$=37.38 s=8.34 r=0.4712**	CPTΣ $\bar{x}$=73.60 s=20.52 r=0.4290*
	r=0.4604**	VQ $\bar{x}$=135.68 s=17.41	
		CPTI $\bar{x}$=37.38 s=8.34 r=0.4953**	CPTΣ $\bar{x}$=73.60 s=20.52 r=0.4313*
Mothers' high-score empathy n=21 $\bar{x}$=74.24 s=6.24	r=0.5422**	IQ $\bar{x}$=143.67 s=13.43	
		CPTI $\bar{x}$=41.22 s=11.15 r=0.6636***	CPTΣ $\bar{x}$=83.00 s=20.35 r=0.9211***
Mothers' low-score empathy n=9 $\bar{x}$=54.04 s=4.77	r=-0.3811*	IQ $\bar{x}$=134.39 s=15.81 | CPTII $\bar{x}$=37.65 s=5.83 r=0.6657***	

trol her infant in the interaction – on the basis of her low-score empathic skill – results more intensive intention of infant to touch the mother.

Conclusions

After number of authors we have hypothesized and proved by our data, that the early empathic maternal response, on the basis of her affective resonance, promotes the development of her infant's own responsiveness (see Sander, 1976, see in Halperin, 1989, Barnett et al., 1980, Demos, 1984).

We could also demonstrate, that there was relation between the mother's empathy – expressing by her mental attitude, body tone and voice – and the formation of the infant's perceptual system and senso-motoric behavior in the mother/infant dinamical dyadic interactions. (See Bruner, 1978, Condon, 1984, Trevarthen, 1979, 1987.)

Our above mentioned results prove , that the communicative attitude of mother, as one of the original factors of her empathy readiness (see Buda, 1978) can influence the infant's social-cognitive development by mobilization of the intelligence, especially the verbal intelligence of child to the social adaptation.

Our data strengthen the result of György I., M. (1984). She found tendency of correlation between the verbal skill and sociability in kindergarten age group of children. We could show significant correlation in the above relation and also between the IQ and sociability. Moreover we could discover some significant relation among the IQ, VQ and the factors of sociability.

We could follow the continuous effect of the mother's verbal communicative attitude and strategy on the child's socialization, in his first six years of life.

Our longitudinal data agree with the results of Feshbach (1978) who found, that the six-year-old child's empathic skill correlates positively with the reflecting behavior of mother and negatively correlates with the maternal overcontrol.

We also believe, that the above mentioned kinds of correlations could be one of the roots of the development of personality, including the moral development in the preschool period (see Hoffman, 1970, Barnet et al. 1980, Halperin, 1989).

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LANGUAGE AND THOUGHT

Comparative study on native speaker children of Hungarian versus Finnish language

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Indo-European languages use the expressions *horizontal* and *vertical* to denote the system of spatial co-ordinates. The languages belonging to the Finno-Ugorian family of languages have special expressions for the two concepts in everyday speech. The common characteristic of these expressions is that they contain some reference to an image, so they are less abstract, semi-abstract or concrete concepts. For example, the Finnish word for horizontal: *Vaakasuora* refers to the balancing of the scale-beams, or the Hungarian word for the same concept, *Vízszintes* semantically refers to the horizontal quality of a quiet surface of water. In the case of verticality the situation is similar but the Finnish word: *Pystysuora* fully concrete I mean "Standing line", which is based on a sure-formed sensory-motor scheme.

We can say that the concept of the horizontal and the vertical is fully developed when a child understands that the surface of water is *always* horizontal and the walls of a building are *always* vertical *invariantly, regardless of the position of the surrounding objects.* According to Piaget and Inhelder (1956) children do not have that knowledge, that is the concept is not developed before the age of 9. Others have come to similar conclusions as well (J. Smedslund, 1963; H. Thomas, W. Jamison, D. Hummel, 1973; H. Beilin, J. Kagan, R. Rabinowitz, 1966).

A lot of cross-cultural research has been done on the problem, among which the investigations of Dasen are outstanding. Their results show that *at the level of concrete operations* in the development of thinking the differences of the natural and the cultural environment influence the time and the order of the formation of concepts. The author explains this with the different interactional experiences of the children. Dasen's investigations have also shown that the basic differences in the answers of children living in entirely different environments (African, Aboriginal, Eskimo, European, North-American) cannot be entirely accounted for the wording of the method in the different cultures or looked at as an artificial result because the researcher had a different native language. (Dasen, 1984.) The explanation for the differences in the development of abstract thinking is problematic because we do not know whether the cognitive processes are universal or not. Dasen concluded: *"The basic structures and operations (using Piaget's terminology) are universal but the extent to which they become functional is largely dependent on the culture and the way of life, which is basically determined by the geographical environment."* (Dasen, 1977.)

The aim of our research is to investigate the influence of cultural, and more pointedly linguistic differences on the development of thinking.

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(As the Hungarian results were shown at the 3rd Fenno-Hungarian meeting in Lahti in 1993, in this article we give more detailed results of the Finnish experiments.) (Mag, 1995.)

METHODOLOGY

Subjects

We carried out the experiment in Hungary on 145 children and in Finland 36 children of 5-12.

The Finnish research was conducted in Jyväskylä, in 1994, in two kindergartens (Kortesuon Päivăkoti and Kortepohjan Päivăkoti) and in a primary school (Jyväskylän Normaalikuolun ala-aste). The number of subjects was 36; 4 children in each age-group (2 boys and 2 girls).

The experimenter was Noemi Kiss who speaks Finnish well.

Procedures

A. We examined how much the concept of the vertical and the horizontal was developed on the basis of the original Piaget-Inhelder experiments, making the children draw.

B. We carried out a supplementary investigation. We used a special instrument (a home made small table with a revolving circular upper part drawn diagonally with a 2 cm wide blue stripe) using in two positions (standing and facing). Two tasks were in this phase of experiment:

   1. to name and to define the difference positions of the stripe, and
   2. to revolve the stripe to the *horizontal* and to the *vertical* positions.

This was the last phase of the experiment, when the experimenter used the two examined words.

We wanted to know how do they understand these words if any.

HYPOTHESES

1. Finnish children develop concepts of spatial co-ordinates earlier than Hungarians because the Finnish words more concrete than Hungarian.
2. The accelerated development is due to the fact that the Finnish language uses concrete words while the Hungarian language uses semi-abstract concepts. The similarities between two languages are that both contain visual elements, which have a mediating function and help to reach not only the concrete operational, but also the formal operational level.
3. The peculiarities of the geographical environment influence the development of spatial orientation, which may be expressed by the different levels of development of the horizontal and the vertical concepts at a given time. Since the subjects live in a town on the plains or close to lakes the concept of the horizontal is more developed than the vertical.

RESULTS

1. The Conceptual Development of the Horizontal and Vertical Co-ordinates

The first result was that the concepts of co-ordinates are more developed than we would have thought on the basis of Piaget's description.

Contrary to the results of Piaget-Inhelder, in the examined Hungarian and Finnish sample the concept of vertical is less developed between 5-12 than the concept of horizontal. (*Table 1*).

As shown in *Table 1*, the development of the horizontal concept in the Finnish sample is much more ahead than that in the Hungarian sample. As shown in *Table 3*, in respect of the *horizontal* concept, all the Finnish children are in the concrete operational stage, and this result is better than those in the Hungarian sample, and the significance between the two averages is significant ($p=0.003$). However, as we will see later, the result is not due to the language, it is rather due to the experience. As the concepts develop through the child's own activity, we should rather think of the numerous plays with water (in sauna and at shores), especially in the Middle-Finnland, where there are so many lakes, and where the research was conducted.

Concerning the development of *vertical* concept there was no significant difference between the two averages, but there was significant difference between the standard deviation of the two samples.

Although the development of the concepts of co-ordinates is parallel according to our results as well, and correlates strongly positively ($p<0.001$) the difference between the development of horizontal and vertical is even more striking if we see them in the process of their formation (*Table 2*).

If we compare the development of the two concepts, there are some other surprising differences in the Finnish sample.

While the development of the *horizontal* concept is quite harmonious, there are *big differences within the age-groups* concerning the development of the *vertical* concept. While in respect of the horizontal concept there are no more than two level differences within the age-group, in the development of vertical concept there are sometimes shift of five levels (in age-group 3. and 7.). (*Table 4* and *Table 5*)

Comparing the results of the Hungarian and Finnish sample, only the development of the horizontal concept in the Finnish sample was harmonious and progressive, in the other cases the concept formation of the co-ordinates was interrupted and not so harmonious.

Looking at *Table 4* and *Table 5* it seems as if there were no connection between the development of these two concepts. However, when we analysed the data it turned out that:

Table 1. The level of development of the two concepts in the sample

		Average	
		Hungarian	*Finnish*
Horizontal	*development of the concept*	*5.18*	*5.44*
Vertical	*development of the concept*	*4.87*	*4.83*

(The 5.0 value represents the transitional level preceding formal operations and the 7.0 would be the total formed concept)

Table 2. The distribution of Hungarian children according to the development of the two concepts

	Levels of development						
Concept	*I.*	*II.A.*	*TRN.*	*II.B.*	*TRN.*	*III.A.*	*III.B.*
Horizontal	4	16	5	6	59	45	10
Vertical	11	15	14	24	42	29	10

There are relatively more drawings characteristic of higher levels in the case of the horizontal, and more that are characteristic of lower levels in the case of the vertical in the Hungarian sample.

Table 3. The distribution of Finnish children according to the development of the two concepts

	Levels of development						
Concept	*I.*	*II.A.*	*TRN.*	*II.B.*	*TRN.*	*III.A.*	*III.B.*
Horizontal				6	15	8	7
Vertical	1	8		6	1	13	7

Finnish children reached at least the concrete operational level of the concept-formation in the case of the horizontal. In the case of the vertical we got strongly different results. A quarter of subjects are at the lower levels of the concept-formation but more than the half of subjects reached the formal operational thinking about vertical.

1. Those children in the level II.B in the horizontal concept reached *maximum* this same level in the vertical concept.
2. There were very *big individual differences* in the vertical concept among those, who reached the transitional level in the horizontal concept. They were either in the level II.A or II.B or reached the level III.

It seems as if *the development of the concept of horizontal co-ordinate were critical for the development of vertical concept.* As in the spatial orientation the vertical and horizontal concepts are very closely joint together and the formation of these two co-ordinates

Table 4. The level of development of the Horizontal concepts in the Finnish sample

	Age (in years)									
Stage	*5.5*	*6*	*6.5*	*7*	*8*	*9*	*10*	*11*	*12*	*Total*
I.										–
II. A										–
Transitional										–
II. B	OOX	OX	X							6
Transitional	X	OX	OX	OOXX	XX	OXX	X			15
III. A			O		OO		OX	O	XX	8
III. B						O	O	OXX	OO	7

In the transitional level 2/3 of the sample are girls, while in the III.A and II.B are boys.
(O=male, X=female)

Table 5. The level of development of the Vertical concepts in the Finnish sample

	Age (in years)									
Stage	*5.5*	*6*	*6.5*	*7*	*8*	*9*	*10*	*11*	*12*	*Total*
I.	o									*1*
II. A	oxx	oxx	x				x			*8*
Transitional										–
II. B			ox	o	ox			o		*6*
Transitional					o					*1*
III. A		x	o	x ox	x	xox	ox		xx	*5*
III. B						o	o	oxx	oo	*15*

(o=male, x=female)

requires each other, the development of one direction (in this case the horizontal co-ordinate, which was formed through the child's own activity) leads to the development of the other direction. If this second co-ordinate is more concrete, more picture-like, it can outrun the earlier formed concept (horizontal) during the further development.

So once a person reaches this transitional level, there is a chance for a sudden progress.

Almost half of the examined Hungarian children are at the transitional level between concrete and formal operations. The case was also the same in the Finnish sample concerning the horizontal concept, but we found only one Finnish child at this level in the case of vertical. (*Table 2* and *Table 3*). The others, 20 person reached the formal operational stage (that is 55.55% of the sample). The results were unexpected and interesting, because Piaget and Inhelder did not experienced that.

The further analysis of those children, who are at the transitional level before formal operations showed that:

- Their drawings, expressions and gestures are very similar to reactions of formal operations, but
- their knowledge are instable and can be easily confused
- their explanations were contradictional with their own earlier explanations
- these contradictions do not create inner tension
- their knowledge concerning the spatial orientation has already been differentiated , but has not yet synthesized.

We have also found similarities between the two samples:

The differences between the sexes were the same in the cases of Finnish and Hungarian subjects:

- there are boys under 6 years mainly at the level of concrete operations
- there are mainly girls at the transitional level
- the children having the best results at the level of formal operations (III.B) are mainly boys, regardless of age.

The results of the supplementary research

The aim of this part of the test was to study the representation of the vertical and horizontal concept in a more abstract situation (i.e without real water).

In the Hungarian research ¾ of the sample fulfilled the instruction perfectly, and after the age of 8 they understand the names of the two co-ordinates equally well. However, we have found big differences between the fulfilment of the two co-ordinates in the Finnish

sample. When we asked the child to set the stripe into vertical position, all of them fulfilled the task right. But when they were asked to set it in horizontal position, 13 children set it into a leaning position.

The reason for this result can be partly the language, partly the fact, that the child's thinking is very situation-bound. In the Finnish language the word by word translation of the vertical means *standing line* – that is why even the youngest children could perform the task right. But the word for horizontal means *scales line* or *balance line*, and because of the experimental instrument their thinking became slaved of the context. While rotating the disc it was easy to associate it with a scales because the stripe was either "in balance" or not (it was tilt).

When the subjects were asked, why they set the stripe into this leaning position, many of the children explained, that *"because these are scales... with which we measure... and the scales are always a bit slanting"*. There were also some children – especially under the age of eight – who after setting the stripe into the correct, horizontal position, added *"that it could also be in a leaning position"* or added, that *"if we put weight on it, it would be like this way"* – and set the stripe into slanting position. Some subjects could not detach themselves from the context even if they performed the task correctly (i.e. a six year old boy mentioned, that certainly many child thought, that the stripe should be in slanting position).

So the child can not only pay attention to the researcher's instructions, they can only pay attention to the whole situation. It is difficult for them to understand the question independently of the context. This task, which aim was to create a *more abstract* situation for the Hungarian children, was *too concrete for the Finns*. Although it was an advantage in following the instruction for the vertical concept, it was a definite disadvantage in the instruction for the horizontal concept.

Summary

In accordance with the aims of our research we examined the role of language as a system of symbols in the development of thinking. Our hypothesis that words containing certain visual elements (semi-abstract and concrete) help the development of the concept was only partly proved.

In the Finnish sample the level of concept-formation of horizontal reaches at least the concrete operations, but in the supplementary research they often made mistakes when following the instruction on the horizontal concept, because the experimental instrument and the meaning of the word (*"balance line"*) confused them.

Another interesting result was that the concept of the vertical was less developed among Hungarian children as well as in the Finnish children than the concept of the horizontal. It contradicted not only Piaget's observations but also another statement of psychological studies (Norman H. Freeman, 1980) that there is a so called *"perpendicular bias or vertical effect"* which emphasises the priority of the vertical axis over all other spatial directions. Ibbotson and Bryant (1976) think that in the orientation of 5-7 year olds – conventionally – the vertical axis is the point of reference and children grant it their attention sooner than the horizontal axis.

These Hungarian and Finnish results which contradict the results of other studies indicate that there is a factor in our research which we did not take into consideration. In our opinion the different geographical environment is this factor. Children from Debrecen hardly ever see a mountain so they sooner form the abstract concept of the horizontal as it is similar to the ground level of the Alföld, the Great Plain, the Finnish children see often lakes and they form their horizontal concepts through their own activity by playing with

water and in water. It sometimes happened during the experiment that the Hungarian subjects said: *"You do not build a house on the side of a mountain"*.

This reaction is worthy of our attention because it shows the importance of experience in the formation of concepts, and this can be accounted for with the differences between the Swiss, Finnish and the Hungarian results. Namely, that the geographical differences between Geneva, Jyväskylä and Debrecen can give an explanation for the differences between the results obtained on the three locations. The majority of the Hungarian subjects only rarely see mountains, which may result in an answer similar to the one I quoted above. Dasen (1984) explains the influence of the different geographical environments in his Berry's eco-cultural model. He claims that people appreciate and develop those skills that help them in their daily activities and are useful for environmental and cultural reasons. According to Dasen's field-work, for example the Inuit people who hunt and gather plants for living develop spatial concepts much earlier than the Baoule people in West Africa who grow food which they sell.

We discovered a third phenomenon which also urged us to be cautious as we were analysing the utterances. In the Hungarian sample, some of those children who used the name of either one of the two axis (or maybe both) did not connect the real meaning to the particular word, or they simply mixed them up which we could see when they were not able to tell us correctly the directions of their drawings or as they were spontaneously moving along either the vertical or the horizontal axis they used exactly the opposite word.

In these cases the two major criteria of conceptual thinking are: *consciousness* and *reversibility* were not present so the formal operational concept of spatial co-ordinates was clearly not present.

In general (analysing results of different age-groups) we found that the development of the concepts of Euclidean geometry, the concept-formation of the co-ordinates (except the concept of horizontal in the Finnish sample), and the function of imagination and mental speed is not harmonious, it suddenly comes to a halt around the age of 10 and then drops.

We discovered that there were differences in the development of the two sexes as well and these differences were the same in the Finnish and Hungarian samples.

Conclusion

We compared our findings with Piaget and Inhelder's results hoping that this comparison will clearly show that the concept of the horizontal and the vertical develops earlier among Finnish and Hungarians, in other words that formal operational thinking starts sooner when it comes to the co-ordinates. Although the comparative analysis showed us that our subjects acquire sooner certain spatial knowledge, which is typical only in higher levels of concept formation, we also found some characteristics which urged us to be more cautious in drawing the conclusion that the concept of spatial co-ordinates also forms sooner, i.e. most of the subjects are in the transitional level. The drawings, and utterances of the children who were on this transitional level, and also their understanding of concepts was apparently *almost* as perfect as those children's who had already passed this developmental stage. However the word *"almost"* is of crucial importance.

What we could see during the analysis of utterances were the different levels of *generalisation*. Vigotsky grouped utterances on the basis of the type of generalisation into a line of development and differentiated between three stages of concept formation. The first stage is the disorganised, synchretic mass formation. The second stage is thinking in complexes, (which he divides into 5 phases) and the last one is conceptual thinking. He considers the above reaction one way of thinking in complexes. He calls this simple generalisa-

tion *"collection"*, where concept forms on the basis of the difference between the elements that belong together, and their mutual completion. A frequently occurring example of this phenomenon was that children who used spatial co-ordinates in their orientation often confused their names. It is sure that there are two major directions, but which is which is uncertain. In this cases we can only talk about pseudo-concepts. According to Vigotsky *pse-udo-concepts* are phenotipically concepts but genotipically complexes. The significance of this phenomenon lies in the fact that it forms an transitional stage between thinking in complexes and thinking in concepts. Typical features are: the absence of unity in the connections, the absence of hierarchy, weak abstract thinking, concrete perception and the unique connection of general to the particular and visa versa. Pseudo-concepts prevail among those who go to elementary school as the generalisations concerning the meaning of words are not formed spontaneously by the child but their development is restricted by the meaning of the words of adult talk.

We most frequently encountered the typical characteristics of the pseudo-concept among those children who were on that transitional level of development which is so typical of a high percentage of the sample between the ages of 5 and 12.

This phenomenon is important for us because it shows that words, as signs, can facilitate and can inhibit the development of the concept they denote but have no priority over thinking.

The answer to the question we posed at the beginning is that the use of semi-abstract expressions helps in the development of thinking only up to a certain point – the formation of concepts. It does not influence when formal operational thinking is formed and it does not influence the pace of the process of concept formation either, as the active participation of the child is indispensable for these processes. The Finnish-Hungarian comparative study shows that the own activity of the child plays the major role in the beginning of the concept formation, the linguistic aspects will become more significant in the further development.

> *Taking all this into consideration we can say that in the sample we examined concept formation is easier but it takes as much time as in any other linguistical and cultural environment. Apart from a few exceptions the formation of the concept of the horizontal and the vertical does not end even at the age of 12.*

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Causes of Aggressive and Violent Behavior in Adolescence and in Young Adulthood

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The main focus of the present paper is to investigate a number of socialization factors in the family as causes of aggressive and violent behavior in adolescence and in young adulthood. Parents occupy a special position in a child's environment. Parents influence the child's behavior intentionally, in the form of child rearing, and unintentionally, depending on how they themselves behave (Radke-Yarrow and Zahn-Waxler, 1986; Viemerö, 1992). There are also links between early child-rearing practices and delinquency in adolescence (e.g. McCord, 1986; Olofsson, 1973). The pervasive and enduring effects of the family environment on antisocial development have been shown e.g. by McCord (1986). In her study variables such as degree of parental hostility, maternal affection and maternal permissiveness predicted later criminality. The results of Farrington (1986) show that the best predictors of convictions and self-reported delinquency are convictions and self-reported delinquency at an earlier age. Other predictors of delinquent and criminal behavior include family criminality, economic deprivation, poor parental child rearing and delinquent friends (Farrington, 1986). Siblings also have an influence on the child in the formation of antisocial behavior, for example when training the child when, whom, and how to hit (Patterson, 1986).

Aggressive children often have aggressive parents as a model for their behavior (McCord, 1986). A child who is punished and rejected by aggressive and antisocial parents has a greater possibility of becoming a criminal (McCord, 1986). According to Olweus (1980), aggressive children have mothers who punish them. Punishment has bidirectional effects on a child's aggressive and antisocial behavior. Children of a punitivity parent become aggressive while the child's aggression simultaneously instigates the parent to use punishment as a method of child rearing (Viemerö, 1986). The socioeconomic conditions of the family are related to child aggression in some countries (Huesmann and Eron, 1986). However, no such connections were discovered in a study of Finnish children (Viemerö and Lagerspetz, 1984), nor have they been found in Swedish studies (Olweus, 1980).

The present study aimed to investigate the predictive value of the child's previous level of aggression, family background and child-raising atmosphere at home on aggressive and delinquent behavior in adolescence and in young adulthood.

Method

Subjects

The original sample of subjects consisted of 220 children (105 male, 115 female) of two age groups, seven and nine, from two public schools in Turku, Finland. The subjects have been interviewed a total of eight times over the past 18 years (1978-1995). At the age of 13/15 the number of subjects participating in the study was 136 and at the age of 15/17 it was 189. Data about the subjects' (N=187) traffic violations and criminal behavior was collected when the subjects were 25/27 years old, that is in 1995.

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The parents of 192 subjects (192 mothers and 146 fathers) were interviewed when the subjects were 7/9-years-old. Of these subjects at least one parent (132 mothers and 88 fathers) was re-interviewed one to two years later.

Procedure

The first interview of the subjects was part of a cross-national study on television and aggression (Huesmann and Eron, 1986) which took place over a three-year period (1978-1980). The subjects were asked the questions during class hours. When the subjects were 15/17-years-old, the questionnaires were mailed to them. This was done because some of the subjects had finished their schooling at the age of 16. At the age of 25/27, that is in 1995, the subjects were interviewed individually.

Parents were interviewed individually at the beginning of the study. If the parent was interviewed twice, the means of the two measurements were used in the final analyses.

Measures

Overt aggression was measured at the age of 7-9/9-11 and 13/15 by the peer-nomination method. The items were of the following type: "Who starts a fight over nothing?".

Self-rated aggression at the age of 15/17 was measured by questions dealing with how often the subject has been the perpetrator of certain physically aggressive acts, e.g. "I get angry and break things" or "I get mad at people".

The extent of aggressive fantasizing at 7-9/9-11 years of age was measured by six questions, e.g. "When you get mad sometimes, do you think about the things you would like to do to the person you're mad at – like hitting, or breaking his toys or telling on him?", and at 15/17 by one of the six questions, "Do you ever imagine yourself hitting or hurting a person you do not like?".

The validity and reliability of these three measures used in the cross-national study have been demonstrated by Huesmann and Eron (1986).

Aggressive behavior was measured at the age of 11/13 by means of teacher-ratings. Teachers were asked to rate the subjects' verbal and physical aggression on a scale of 0 to 4. In order to make the ratings as uniform as possible, teachers were introduced to typical examples of both verbal and physical aggression (Viemerö, 1986).

Physical aggression at the age of 13/15 was measured by asking "How often do you get into a fight or hit someone?" Physical aggression at the age of 15/17 in turn was measured by a procedure used by Patterson, Dishion and Bank (1984) in their study. Subjects were presented with statements such as "I often get into fights" and "I attack people".

Indifference about general order, measured when the subjects were 15/17-years-old, included items like "I have broken street lamps or other property" or "I have driven without a licence". The subjects were also asked to estimate how often they themselves and their best friends had been caught (by parents, teachers, police or a doorman) for an illegal act. Typical offences on the list were crimes against property (e.g. theft, pilfering, destroying property), violent behavior (fighting, assault), disturbing behavior (drunkenness, breaking and entering, causing a disturbance) and traffic violations (driving without a licence, driving an overly tuned up moped). The reliability and validity of these measures have been demonstrated by the author elsewhere (Viemerö, 1986).

Offences known to the police further completed the picture provided by the above questions about the subjects' criminal or antisocial behavior. The police force in Finland records all offences committed by those under 15 years of age even if they are not responsible for their actions in the eyes of the law.

Data concerning criminal behavior and traffic violations was collected when the subjects were 25/27 years old. Criminal behavior was coded as a number of arrests. Minor crimes were excluded, and attention was focused on more serious crimes, i.e. property offences and physically violent behavior. Traffic violations included e.g. the number of days the driver's licence had been suspended and the number of times the subject was charged with drunken driving. Parking violations were excluded.

The education of the subjects' parents was determined by means of a ten-point scale (0=the lowest, 9=the highest level of education), while occupation was based on a nine-point scale (1=the highest, 9=the lowest occupational status).

Parental aggression and aggressive fantasizing were measured in the same way as the subjects' self-rated aggression and aggressive fantasizing at the age of 15/17 years.

Attitudes of rejection against the child were investigated by inquiring as to whether the parent was satisfied with the child and the child's behavior. A parent with a high score on rejection typically complains that the child is forgetful, has bad manners, does not look after things, and so forth.

Punitivityness refers to how and how often the parent punishes the child. Questions only took physical punishment into account. The punishment score was also computed from the subjects' own reports at the age of 13/15 as the total frequency of punishment in school and at home. The reliability and validity of parental variables have been shown by Huesmann and Eron (1986).

Results

Aggression in Childhood and Its Connections to Parental Variables

Boys were significantly more aggressive than girls ($F=8.43$, $p<.005$) measured by means of the peer-nomination procedure at the age of 7/9.

When peer-nominated aggression and aggressive fantasizing at the age of 7/9 were correlated with parental variables, there were only a few significant cross-sectional correlations between these to be noted. Peer-nominated aggression correlated positively and significantly for both boys and girls with parental attitudes of rejection (boys: $r=.37$, $p<.001$; girls: $r=.24$, $p<.05$) and punitivityness (boys: $r=.22$, $p<.05$; girls: $r=.28$, $p<.01$). These correlations remain positive and significant if they are calculated using averaged peer-nominated aggression from the three first interviews. However, there were no significant concurrent associations between the subjects' aggression and the parents' aggression. Nor were there significant relationships between the subjects' aggression or aggressive fantasizing and the parents' age, educational or occupational status.

Aggression, Antisocial and Criminal Behavior in Adolescence

A total of 12.4% of the male subjects in the original sample of 105 boys were already, at the age of 15/17, in police files. Of the female subjects in the original sample of 115, 5.2% were in a police register by the age of 15/17.

The number of the subjects and that of their friends caught for different offences was high according to the subjects' ratings. About 18% of the boys and 4% of the girls had been caught for fighting. The corresponding figures for boys' and girls' friends were 43% and 20%. About 17% of the boys and 8% of the girls had been caught for pilfering. The corresponding figures for their friends were 50% and 30%.

Table 1. Intercorrelations of variables measured at the age of 15/17 years.

	1.		2.		3.		4.	
	boys	*girls*	*boys*	*girls*	*boys*	*girls*	*boys*	*girls*
1. Self-rated aggression								
2. Physical aggression	.31 [b]	-						
3. Indifference about general order	.29 [b]	.21 [c]	.32 [b]	.18 [c]				
4. Self-rated criminality	.37 [a]	.14	.31 [a]	.33 [b]	.55 [a]	.41 [a]		
5. Aggressive fantasizing	.18 [c]	.41 [a]	.19 [c]	.30 [a]	.12	.25 [b]	.07	.21 [c]

[a] $p<.001$ [b] $p<.01$ [c] $p<.05$

The correlation between the subjects' own criminal behavior and that of their friends was .73 ($p<.001$) for the male and .37 ($p<.001$) for the female subjects. Their own criminal behavior and offences known to police were also intercorrelated ($r=.64$, $n=14$, $p<.05$ for the male and $r=.75$, $n=5$, ns for the female adolescents).

All the aggression and delinquency variables measured at the age of 15/17 were highly intercorrelated for both the male and the female adolescents. Only aggressive fantasizing in the case of the male subjects constituted an exception (*Table 1*).

Also the correlations between previously measured aggression and measures at the age of 15/17 were positive and statistically significant. Even here aggressive fantasizing failed to reach the level of significance for the male adolescents (*Table 2*).

Parents' Role in the Antisocial and Criminal Behaviour of Adolescents

Stepwise regression analyses were conducted on mothers' and fathers' age, education, occupation, aggression, aggressive fantasizing, punitivityness and rejection as independent variables and all the subjects' aggression and criminality variables, in turn, as dependent variables. The predictive value of the above-mentioned parental variables on the subjects'

Table 2. Correlations of self-rated aggression, physical aggression, indifference about general order, self-rated criminality and aggressive fantasizing measured at the age of 15/17 years, with previously measured peer-nominated aggression and teacher-rated physical and verbal aggression (boys, n=88; girls, n=99).

	Peer-nominated aggression at 7/9 years		*Peer-nominated aggression at 13/15 years*		*Teacher-rated physical aggr. at 11/13 years*		*Teacher-rated verbal aggr. at 11/13 years*	
	boys	*girls*	*boys*	*girls*	*boys*	*girls*	*boys*	*girls*
Self-rated aggression	.11		.22 [c]					
Physical aggression	.25 [c]	.31 [a]	.28 [c]		.22 [c]		.24 [c]	
Indifference about general order	.22 [c]	.22 [c]	.40 [a]		.20 [c]	.27 [c]	.30 [b]	.32 [b]
Self-rated criminality	.35 [a]	.21 [b]	.67 [a]	.28 [c]	.33 [b]	.21 [c]	.34 [a]	
Aggressive fantasizing	.11	.15	.03	.29 [c]	.17	.17	.27 [c]	.27 [c]

[a] $p<.001$ [b] $p<.01$ [c] $p>.05$

aggressive, antisocial or criminal bevavior was not very high. The aggression of fathers, measured when the subjects were 7/9-years-old, predicted peer-nominated aggression ($r=.39$, $p<.05$) and physical aggression ($r=.42$, $p<.01$) at the age of 13/15 for the male adolescents. The aggression of mothers, in turn, predicted physical aggression at 13/15 years of age ($r=.40$, $p<.01$) and indifference about general order at 15/17 for the female adolescent subjects. Attitudes of rejection by mothers predicted indifference about general order at 15/17 ($r=.35$, $p<.01$) and mothers' punitivity predicted physical aggression at 15/17 ($r=.32$, $p<.05$) for the male subjects. It is noteworthy to note that the aggressive subjects were punished significantly more often than the non-aggressive subjects ($t=2.45$, $p=.02$) at the age of 7/9. Further, at the same time that punishment predicts aggression, aggression at the age of 7/9 predicts punishment at the age of 13/15 ($r=.40$, $p<.001$).

The predictive value of parents' education for peer-nominated aggression at 13/15 become apparent in a combination of parental variables and the subjects' previous aggression and TV-violence viewing habits. The standardized regression coefficient between mothers' education and peer-nominated aggression at 13/15 was -.36, $p<.01$ and between fathers' education and peer-nominated aggression at 13/15 .23, $p<.05$ for the male subjects ($R^2=.698$, $F(10,41)=9.49$, $p<.001$). For the female subjects, the regression coefficient between mothers' education and peer-nominated aggression at 13/15 was .33, $p<.05$ and between fathers' education and peer-nominated aggression -.29, ns ($R^2=.433$, $F(5,39)=5.97$, $p<.0003$).

Variables best predicting physical aggression at 15/17 were previously measured peer-nominated aggression and self-rated aggression together for both genders (males, $R^2=.23$, $F=2.20$, $p=.05$; females, $R^2=.24$, $F=2.08$, $p=.06$) and previous TV-violence viewing for the female subjects ($R^2=.27$, $F=3.18$, $p=.02$).

Parents' Role in the Antisocial and Criminal Behaviour of Young Adults

A total of 60% (n=63) of the original sample of (105) male and 36.5% (n=42) of (115) female subjects had criminal records or traffic violations at the age of 25/27. If only criminal behavior is considered, the rates were 28.6% (n=30) for the male and 21.7% (n=25) for the female subjects. Of the male subjects, 13.3% (n=14) and 2.6% (n=3) of the female subjects have been convicted of crimes involving physical violence.

In order to discover causes of criminal behavior in young adulthood multiple regression analyses were done with the number of arrests and the total criminality (=the number of arrests + number of traffic violations) scores as dependent variables and some parental variables, previous aggression and TV-violence viewing measures as well as variables measured in adolescence as independent variables.

Parental variables, measured when the subjects were 7/9 years old, did not have any impact on the subjects' total criminality score in young adulthood. A combination of aggression and delinquency variables measured in adolescence predicted the total criminality score at the age of 25/27 (males, $R^2=.22$, $F=2.04$, $p=.06$; females, $R^2=.40$, $F=6.46$, $p=.000$). Other groups of variables predicting the total criminality score were previous aggression measures for the female subjects ($R^2=.32$, $F=4.66$, $p=.000$) and previous TV-violence viewing for both genders (males, $R^2=.28$, $F=2.37$, $p=.04$; females $R^2=.43$, $F=10.04$, $p=.000$).

Regression analyses were also done with the number of arrests as the dependent variable and previous aggression measures, previous TV-violence viewing, measures in adolescence and parental variables, independently of each other, as independent variables. This analysis showed that parents' aggression, punitivity and attitudes of rejection, as well as

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measures in adolescence, significantly predicted the number of arrests for the female subjects. Other predictors were previous aggression measures and previous TV-violence viewing for both genders (*Table 5*).

Discussion

Aggression was proved very stable from childhood (age 7/9) to adolescence (age 15/17) in the present study. The stability of aggressiveness has been documented in many other studies as well (e.g. Olweus, 1980). Peer-nominated aggression at the age of 7/9 was associated with most of the aggression and criminality variables in adolescence for both the male and female subjects.

Different methods of measuring aggression or antisocial and criminal behavior in adolescence were intercorrelated in the present study. One exception to the above-mentioned trend was the correlation between peer-nominated aggression and the amount of aggressive fantasizing of the adolescent boys, regardless of the positive correlation between these variables at the age of 7/9 (cf. Feshbach, 1955). It is understandable that boys who are rated as aggressive by peers do not admit that they have fantasies -aggressive or otherwise.

Although the subjects admitted too few or no criminal acts compared with those of their friends, talking about the illegal actions of their friends provided some information about the group of peers with which the subjects associated. According to the studies by Farrington (1986), delinquent friends are predictors of convictions and self-reported delinquency.

Even if there were few connections between parental variables and aggression in childhood or aggressive fantasizing at 7/9, the cumulative effects of the parents' education, aggression and child rearing practices were unquestionable (cf. McCord, 1986; Olofsson, 1973). Nonetheless, parents do influence their child's behavior intentionally (e.g. by means of punishment and rejection) and unintentionally (by educational or occupational status and by aggressive behavior) as has been noted by Radke-Yarrow and Zahn-Waxler (1986). According to Olweus (1980), aggressive boys have mothers who punish them. This is supported by the results of the present study: mothers' punitivityness predicted violent behavior in adolescent boys. Maternal aggression predicted violent behavior, self-rated aggression and indifference about general order in the female adolescents. Paternal aggression, in turn, predicted aggression and violent behavior in the male subjects. Parents of the same sex function best as a model for behavior. Parents' education revealed no concurrent connections to aggression in children in the present study (cf. Viemerö and Lagerspetz, 1984; Olweus, 1980) but had cumulative effects on the adolescents' aggressive behavior. Parents with a high occupational position do not have much time for their child. A natural consequence of this is rejection of the child by the parents, though this is most often unintentional.

Parents' behaviour had a uniform, but not a very highly predictive value on juvenile antisocial and criminal behavior. The child's former aggression was not included in the same regression analyses as parental variables. In reality it is not possible to treat these variables separately. A child's behavior is a function of the interaction between different sources. This was well demonstrated by the present study because, in addition to correlations between earlier punishment and later aggression, there were also significant correlations between earlier aggression and later punishment (cf. Viemerö, 1992).

The cumulative effects of parental aggression, punitivity and attitudes of rejection were shown by the multiple regression analysis with the number of arrests in young adulthood as the dependent variable. Aggression, punitivity and attitudes of rejection by both parents

Table 3. Variables predicting the number of arrests in young adulthood (males n=28, females n=20).

Dependent variable	Independent variables
NUMBER OF ARRESTS	PARENTAL VARIABLES
	Father's aggression
	Mother's aggression
	Father's rejection
	Mother's rejection
	Father's punitivity
	Mother's punitivity
	Male
	Female R^2=.67, F=5.11, p=.004
	PREVIOUS AGGRESSION MEASURES
	Peer-nominated aggr. at 7/9
	Peer-nominated aggr. at 8/10
	Peer-nominated aggr. at 9/11
	Peer-nominated aggr. at 13/15
	Teacher-rated verbal aggr. at 11/13
	Teacher-rated physical aggr. at 11/13
	Male R^2=.28, F=2.92, p=.016
	Female R^2=.41, F=6.83, p=.000
	PREVIOUS TV-VIOLENCE VIEWING
	TV-violence viewing at 7/9
	TV-violence viewing at 8/10
	TV-violence viewing at 9/11
	TV-violence viewing at 13/15
	Male R^2=.18, F=2.43, p=.046
	Female R^2=.30, F=5.69, p=.000
	MEASURES IN ADOLESCENCE
	Self-rated aggression
	Aggressive fantasizing
	Physical aggression at 13/15
	Physical aggression at 15/17
	Self-rated criminality
	Indifference about general order
	Male R^2=.20, F=1.84, p=.099
	Female R^2=.27, F=3.58, p=.002

predicted the number of arrests for the female subjects, but not for the male young adults. The girls were more sensitive than the boys to the parents' behavior and methods of raising their children. Also, the measures in adolescence failed to predict the number of arrests for the male subjects. Maybe the deviant behavior of the girls has been replaced by more stable forms of behavior in adolescence. Boys, whose development is later than that of girls, may change their forms of behavior when they grow older, to a greater degree than girls.

In summary, aggressive, antisocial or criminal behavior in adolescence is a function of the subjects' former aggression and their parents' intentional and unintentional influence on them. Even if there were only a few cumulative effects of the parental variables on the child's later behavior in this study, the fact that different forms of aggressive behavior and viewing television violence reveals something about the atmosphere in the home, which, in turn, is shown as aggressive and criminal behavior in adolescence and in young adulthood.

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WHAT ARE YOUNG DELINQUENTS REALLY LIKE?

A pilot study on the self-concept

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INTRODUCTION

A surprisingly large proportion of youth have in ascertainable fact engaged in delinquent activities over the last few years in Hungary. According to recent statistics (Munnich, 1994), most of the delinquents (80%) are men aged 18-39 years. Social scientists think the basic economic and social changes that have been taking place in Hungary are responsible for the disadvantageous criminal statistics. They argue that unemployment and homelessness have had an undesirable effect on people's lives many of whom have had to leave villages to look for jobs in cities, and they have became more or less rootless in their new urban environment.

The theoretical explanations for delinquency are many. There are theories variously emphasizing the determing influence of (1) general societal structure (e.g. Merton, 1957), (2) the nature of the individual's immediate social network (Sutherland and Cressey, 1978) and (3) individual needs, or social and biological disfunction (Reckless, 1967). However, efforts to integrate these different theoretical approaches have also taken place in recent years based on the assumption that differences in the social environment are reflected in the structure and the content of the self-concept of delinquent individuals (e.g. Oyserman, D. and Markus, H., 1990). The self-concept has proved to be an important feature in many explanations of delinquent behaviour (e.g. Kaplan, 1957). Generally the importance of the self in information-processing has led social psychologists to be cognizant of the idea that the self-concept might have a central role in the organization and mediation of information both about the self and others.

A former study (Katona-Sallay, H., 1989) concentrated on the self-characteristics of deviant (being in prison) and non-deviant adults. In this study deviants tended to evaluate themselves more extremely compared to non-deviant subjects: delinquents rejected negative attributes describing them more and they overemphasized positive characteristics at the same time. This tendency was interpreted as compensatory in nature: its purpose was to form in others a favourable impression and to show this way that they are just the same as anybody else.

The role of possible selves (the most significant aspects of the self which reflect an awareness of individual's potential) seems to be crucial in delinquency; thus specific images of relevant possibilities may be necessary to help keep delinquents in pursuit of desired possibilities and the avoidance of negative acts. The study of delinquents' real and possible selves are very important, because they show what they are and what they would like to become and avoid in the future. It is important to know what they think about their fate, how they think they will be able to cope with their problems and how will they be able to adapt themselves to Hungarian society after being released.

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Two studies had been conducted to reveal delinquents' self-concept. The first describes young delinquents' real self -characteristics and their relations to typical "masculine" behaviour: the main idea behind this thought is that delinquents are usually considered as very masculine and usually aggressive individuals. The identification of the typical features of the self-concept makes it possible to describe different types of delinquents.The second study compares younger and older delinquents' real self-concept. Similarities and differences in the real- and possible selves are interpreted as an effect of the different age cohort.

STUDY 1

Subjects

Young delinquent men (N=28, mean age: 22.8 years) being in prison took part voluntary in the study.

Measures

Different kinds of measures were used as follows:

1. The basis of the questionnaire assessing the real self were free-descriptions . When answering the question "What are you really like?" subjects had to list attributes they thought the best described them. The self-descriptions were analysed with the help of the categorization system developed by Oppenheimer, L. (1990). The most frequent attributes listed by the respondents were chosen from each category, i.e. those of Physical self, Active self, Psychological self, Social self, and Reflective self. In the final version of the questionnaire 41 attributes were included in random order. Subjects had to rate themselves on a 5-point Likert-scale (1: not characteristic at all; 5: very characteristic).
2. Possible selves were assessed by two questions: "What would you like to become in the future? What would you like to avoid in the future?" The responses were coded with the same categorization system that was used in relation with the real self-concept descriptions.
3. Identification with sex-roles was measured by the Hungarian version of the Bem Sex Role Inventory. The subscales are the following ones:
   a. Masculinity:e.g. has self-confidence
   b. Femininity: e.g. likes children
   c. Social desirability: e.g. helpful
4. The aggressive and hostile tendencies and different manifestations of aggressive behaviour were assessed by the Hungarian version of the Buss-Durkee Inventory. This inventory consists of the following subscales:
   a. Assault: e.g. "If somebody hits me first, I let him have it."
   b. Indirect assault: e.g. "When I am angry, I sometimes sulk."
   c. Irritability: e.g. "Lately, I have been kind of grouchy."
   d. Negativism: e.g. "When people are bossy, I take my time just to show them."
   e. Resentment: e.g. "I do not seem to get what is coming to me."
   f. Suspicion: e.g. "My motto is 'Never trust strangers'.".
   g. Verbal aggression: e.g. "When I get mad, I say nasty things."
   h. Guilt: e.g. "Failure gives me a feeling of remorse."

Hypotheses

1. The self-concept of young delinquents reflects the specific features of their self-identification in undesirable contexts making it possible to identify different types of delinquent selves.
2. These types significantly differ from each other in identification with the typical masculine role and behaving aggressively and hostile.
3. The possible selves of these types show different motivational backgrounds reflecting the way they try to cope with their disadvantageous situation.

Method

1. Regarding to the questionnaire describing the main features of the real self, two different types of real self were identified through several steps of analyses:
   - principal component analysis revealed the most important characteristics
   - subjects were classified into subgroups based on the results of the principal component analysis by cluster analysis. The specific characteristics of the two types were revealed by ONEWAY analysis of variance.
2. Descriptions of possible selves were interpreted in accordance with the above-mentioned characteristics with reference to the two types of delinquent self with the help of the categorization system used for analyzing the real self descriptions previously mentioned.
3. Specific features of the two types were shown by ANOVA in the Bem Sex Role Inventory (subscales: masculinity, femininity, social desirability), a 7-point Likert-scale.
4. The differences in the two different types of real selves in respect to aggressive and hostile behaviour were analyzed in the Buss-Durkee Inventory by ANOVA. Subjects had to sign if they agreed or disagreed with the given statements of the questionnaire.

Results

1. Principal component analysis revealed four main factors that can be interpreted as follows (*Table 1*):
   - factor 1: socially adaptive behaviour; the family is very important.
   - factor 2: "intellectual" type, work is very important for the delinquent subject.
   - factor 3: "champion of justice"; physical strength helps to strive for justice.
   - factor 4: prosocial attitudes and friendliness are the most prominent characteristics

Based on the cluster-analysis of self-descriptions two different types of delinquent self emerged The first type (N=19) can be characterized as being more intellectual, diligent and balanced, for whom the justice is the most important thing. The second type (N=9) describes handsome, strong, athletic, not so hard-working subjects, who are somewhat lazy and romantic. Significant differences between the two types were revealed by ONEWAY analysis of variance in factor 3 ($F=18.051$, $p<.0002$, $x_{type1}=.4326$, $x_{type2}=-.9133$). Attributes describing factor 3 were as follows: wise; strong; justice is important for him; handsome; he has an athletic appearance (see *Figure 1*).

2. In some cases the categorization system was not able to cover the possible selves described by the respondents. Even the modified, enlarged categorization system (Katona-Sallay, 1994) failed to be successfully used. The emerging descriptions that

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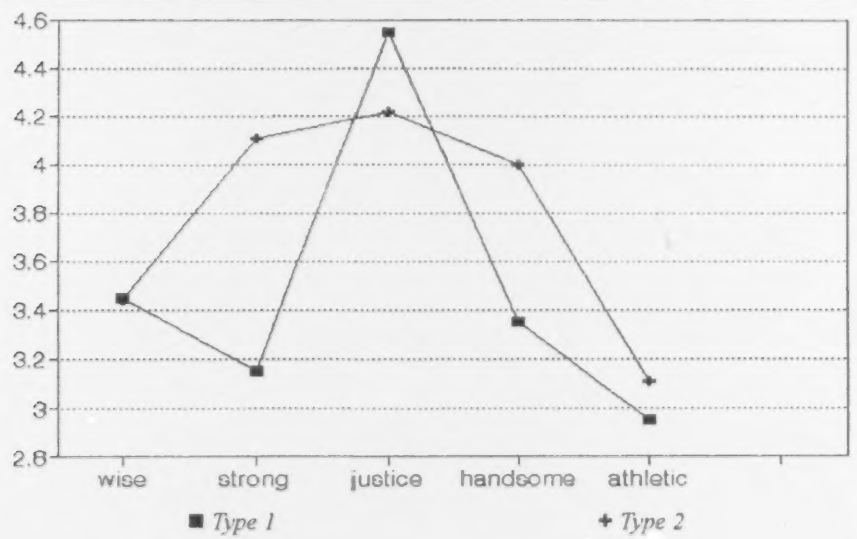
Table 1. Results of the principal component analysis regarding the real self

	Eigenvalue	Pct of var.	l	mean	Sd
Factor 1	4.789	21.8			
• faithful			.7929	4.15	1.06
• likes children			.7681	4.78	.64
• loves his family			.7095	4.78	.51
• has a capacity for self-accomodation			.7024	4.26	.71
• sympathetic			.6373	4.37	.69
• romantic			.5124	4.15	.77
Factor 2	3.493	15.9			
• calm			.7787	3.26	1.38
• likes working			.7706	3.48	1.31
• intelligent			.7114	3.70	.99
• diligent			.7112	3.74	.98
Factor 3	2.575	11.7			
• clever			.8003	3.48	.89
• strong			.7678	3.48	1.12
• likes justice			.5627	4.44	.75
• handsome			.5547	3.63	1.04
• athletic appearance			.5421	3.04	1.48
Factor 4	2.302	10.5			
• helpful			.9250	4.15	.95
• cheerful			.6823	3.74	1.23
• educated			.6696	3.52	.89
• friendly			.6461	4.22	1.05
• does not drink alcohol			-.5609	2.78	1.42

Figure 1. Real self differences in Type 1 and Type 2



could not be made fit into the system were as follows: it could be observed in the case of both types that they refuse to recognize the events they fall victim to. These are possibilities that arise independently of them, but still have an important effect on their lives, e.g. "I would like to live in peace"; "Someone should stop inflation"; "the communist system should never return in our life". They also have unrealistic images: they would not like to get older or die. They would like to avoid all kinds of disappointment. However, they do not think themselves responsible for their own fate: they think that their surroundings are responsible for their destiny. This kind of attitude seems to be negative with a view to the future, as their own active contribution to their life is missing: they do not feel that they are able to control their own lives. These kind of descriptions can be categorized into a so-called "Passive self" category which would represent those kind of images about the self where something passively is happening to the self; that is, the self is a participant in an event without apparently actively contributing to it.

The interpretation of possible selves show interesting differences between the motivational characteristics of the two types. Subjects of the first type hope for a good family life, a safe job and to be released from prison. They would like to avoid different kinds of disease and being sent back to jail again. Subjects of the second type emphasize that they would like to live without financial difficulties. They would not like if others induced them to commit any more crimes and that the society would label them for the rest of their life.

Further measures also supported the differences of the types mentioned earlier. A number of important significant differences were shown between the two types:

3. The identification with the sex roles measured by the BSRI showed that subjects belonging to the first type are more conscientious, predictable, sincere and tactful. They can be characterized as having more prosocial attitudes (as a part of "feminine" behaviour): they are more compliant and tend to calm others as well (see *Figure 2*).

Figure 2. Differences between Type 1 and Type 2. Bem Sex Roles Inventory

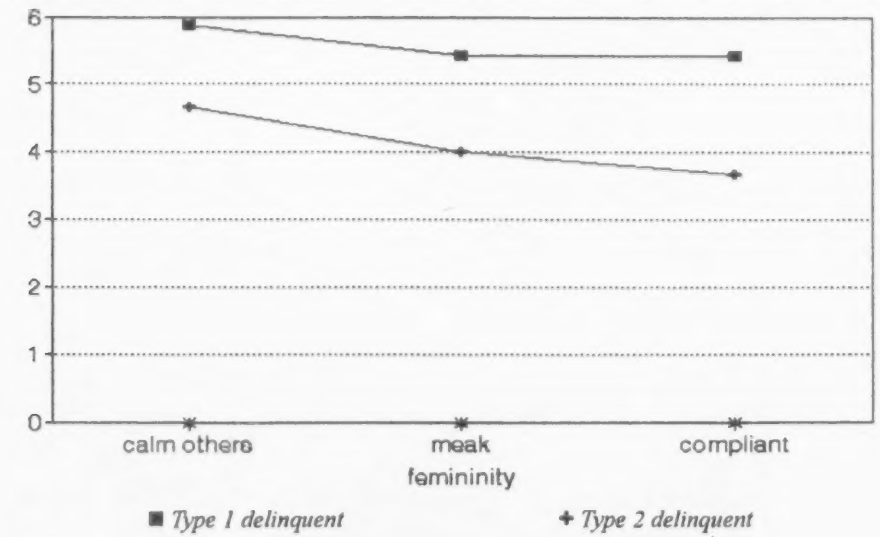


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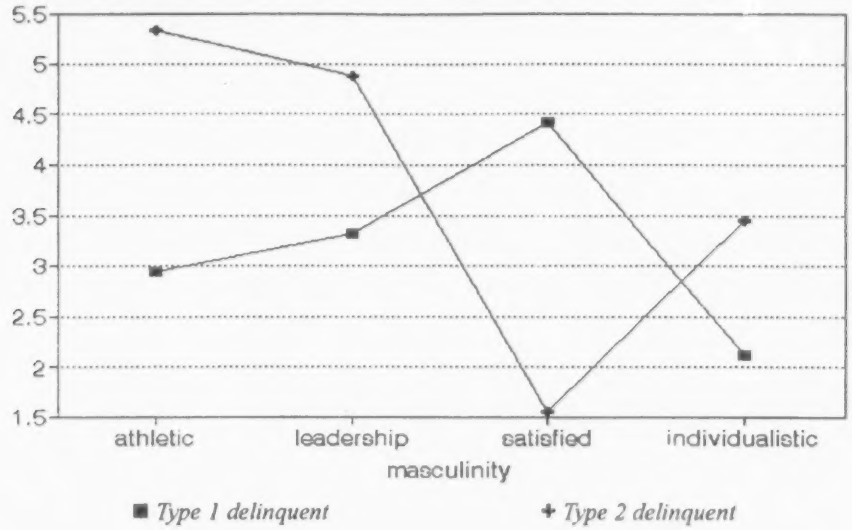
Figure 3. Differences between Type 1 and Type 2. Bem Sex Roles Inventory

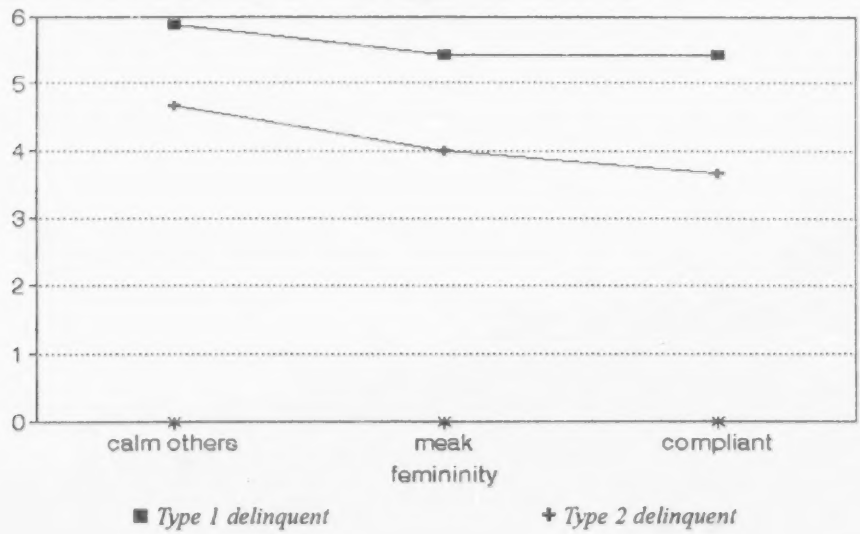


Subjects resembling the second type proved to be more typical in their masculine behaviour (see *Figure 3*). They think they have good abilities for leadership, are physically strong, very individualistic and selfish.

At the same time they show less socially desirable behaviour (see *Figure 4*).

4. The results of the different subscales in the Buss-Durkee Inventory showed that the first type proved to be feeling guilty ($F=3.798$, $p < .067$, $x_{type1}=6.47$, $x_{type2}=5.11$). An

Figure 4. Differences between Type 1 and Type 2. Bem Sex Roles Inventory



increased tendency to be suspicious can be observed as characterizing the first type of delinquent self as well.

Summary

Two types of delinquent selves emerged based on the cluster-analysis of real self descriptions. To briefly reiterate, subjects belonging to the first type are more intellectual, diligent and balanced persons, showing more socially acceptable behaviour. They are more conscientious, more predictable, sincere and tactful, showing prosocial attitudes towards others as well. They hope to be able to regain their trust in others and they are actively seeking the way to get rid of the label "criminal".

The second type resemble handsome, strong, more typical masculine subjects, who are not so hard-working and are rather lazy and romantic. They do not have a positive image regarding their future in the sense that they want to avoid other criminals and criminal acts: they think they will avoid prison if others do not tempt them to engage in such socially proscribed activities.

These results are only exploratory in the sense that up till now systematic research has not been conducted to explore different types based on self-characteristics. Morover, other data with delinquent subjects of these types was not available for any comparison to be made. The next steps should be made in this direction.

Study 2

The study of adult self-concept is widespread. Earlier studies have shown,that the self in adulthood consists not only of characteristic personality attributes but also of accumulated knowledge systems and dynamic processes of interaction with age-related tasks. Various approaches are known for studying the possible changes in self-concept during this age period. It is worthwile mentioning the Berlin Age Study which revealed that different self profiles were differently associated with health, cognitive and life-history variables. Though in this study respondents were old subjects, the method of profile-conceptualization opened the possibility of obtaining both a comprehensive picture of the self-characteristics of subjects as well as indicated the differential patterns of adjustment to old age (Smith, J., Staudinger, U.M. and Freund, A., 1991). This method and way of thinking is very near to the ideas in focus of this study.

This study concentrates on the specific features of younger and older delinquent men's self-concept. Similarities and differences in the real- and possible selves are interpreted as an effect of the different age cohort. Identification of delinquent selves in both age groups helps to understand other differences in hostility-aggression and identification with sex roles as well.

Subjects

Younger (N=29, mean age: 22.8 years) and older (N=19, mean age: 34.6 years) delinquent men took part voluntary in the study.

Measures

For measuring real self-concept, identification with sex roles and the tendency for behaving aggressively the same measures were used as in Study 1.

Hypotheses

1. Different types of delinquent selves can be described based on the self-descriptions of older delinquents.
2. The types of self-concepts are different in the two age groups.
3. The possible selves of delinquent types identified by self-descriptions are different: age is an important determinant in what they strive for and what they want to avoid in the future.
4. The identification with the sex roles are different in the above identified types.
5. Aggressive and hostile behaviours differently relate to each type.
6. Sociological variables (age, family status, etc.) may also have a pervasive effect on the manifestation of aggression.

Method

The methods were just the same as in Study 1.

Table 2. Results of the principal component analysis regarding the real self of the older subjects

	Eigenvalue	*Pct of var*	*1*	*mean*	*Sd*
Factor 1	*8.857*	*32.8*			
• *skilful*			*.8594*	*3.79*	*.98*
• *aggressive*			*-.8253*	*2.26*	*1.41*
• *likes reading*			*.8249*	*3.63*	*1.57*
• *has a capacity for self-accomodation*			*.7961*	*3.79*	*1.40*
• *educated*			*.7908*	*3.63*	*.90*
• *likes nature*			*.7771*	*4.32*	*1.34*
• *is in love*			*.7659*	*3.58*	*1.35*
• *romantic*			*.7372*	*3.89*	*1.24*
• *likes freedom*			*.7255*	*4.79*	*.63*
• *likes company*			*.7219*	*4.32*	*1.11*
• *diligent*			*.7028*	*4.21*	*.79*
• *broken by fate*			*.6718*	*3.42*	*1.30*
• *clever*			*.5617*	*3.58*	*.96*
Factor 2	*6.4537*	*23.9*			
• *sympathetic*			*.9129*	*3.95*	*1.47*
• *loves his family*			*.8582*	*4.58*	*1.22*
• *optimistic*			*.8149*	*3.58*	*1.35*
• *average appearance*			*.7461*	*3.84*	*1.38*
• *athletic appearance*			*.6747*	*3.00*	*1.37*
• *cheerful*			*.5680*	*3.84*	*1.46*
Factor 3	*2.3659*	*8.8*			
• *calm*			*.8579*	*3.16*	*1.46*
• *modest*			*.8270*	*3.58*	*1.61*
• *likes music*			*.7150*	*3.79*	*1.58*
• *intelligent*			*-.6863*	*3.74*	*.99*
• *honest*			*.5837*	*3.63*	*1.34*

Results

1. Principal component analysis revealed three main factors (see *Table 2*) that can be interpreted as follows:
   - factor 1: versatile, skilful, clever, educated,very sensitive individual, who likes nature and the company of others. Destiny has broken his life.
   - factor 2: Balanced type. Optimistic, cheerful, who loves his family.
   - factor 3: peaceful, modest, calm, thinks himself honest. Not very intelligent.

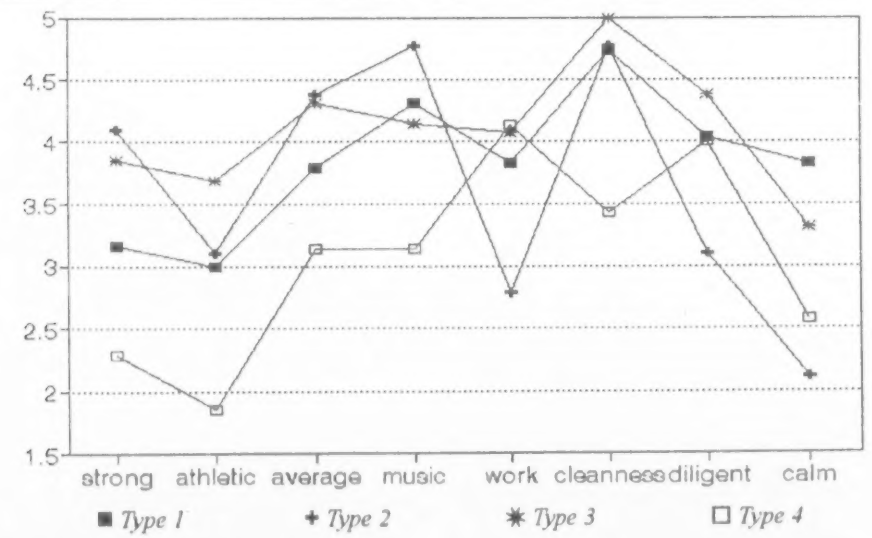
Based on the cluster-analysis of self-descriptions two different types of delinquent selves (Type 3 and Type 4) emerged.

The two groups identified by cluster-analysis significantly differed from each other in all the three factors previously mentioned. Type 3 subjects (N=13) can be characterized as more educated, sensible, who likes the company of others, but whose lives are broken by destiny ($F=9.978$, $p< .006$, $x_{type3}=.35$, $x_{type4}= -.77$). The second component significantly proved that subjects of Type 3 are more balanced and tend to understand others as well ($F=6.853$, $p< .018$, $x_{type3}=.35$, $x_{type4}= -.77$). The third factor component showed that Type 4 subjects are less calm, modest and do not think themselves very honest ($F=3.135$, $p< .95$, $x_{type3}=.26$, $x_{type4}= -.57$).

2. Differences between the two younger (Type 1 and Type 2) and older (Type 3 and Type 4) delinquent selves were revealed by ANOVA. The attributes showing significant differences between the four types related to physical apperance (strong; athletic appearance; average appearance), preferences (likes music; likes cleanness) and psychological self (diligent; calm) (see *Figure 5*).
3. Not all of the respondents filled in the questionnaire regarding the possible selves, so the only possibility is to interpret the descriptions without a detailed statistical analysis.

Older subjects emphasized in the category of Physical self that they would like to get more financially, and to solve their problems regarding their living conditions. In the cate-

Figure 5. Differences of real self between the four types



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gory of the Active self it is important for them not to get into jail any more. However, at the same time they do not speak about that they would not like to commit any crime in the future. This is very negative for them from a motivational background, as they do not take the responsibility for their behaviour in this way. Neither in the category of Psychological self, nor in the category of Roles can we find any positive possibilities that would lead them in their future life after being released. However, the possibilities emerging in the category of Social self are significant: this means that they emphasize good family life. At the same time they do not want to loose their friends either. This shows that family and close friends mean such a stable point in their lives that give them security and protection and may prevent them from deviant acts.

For the younger subjects material things are important, too, but it is even more important for them that they would like to avoid getting into prison again. It is very special that they mention events that they fall victim to and are "passive" participants in them: however, these events have a pervasive effect on their lives (e.g. "if only there were no wars"; "if only there were no inflation"). They would not like to get older. They feel that they will be compensated for time they spent in jail in the future, as they were only "victims" of those events that happened to them and because of which they were sent into prison. From a motivational point of view this is not favourable, as denying the possibility of committing any crime is missing from the desired possibilities.

4. The results of the ANOVA on the masculinity scale of the BSRI showed that Type 4 subjects were the most satisfied with themselves ($F=4.984$, $p<.005$, $x_{type1}=4.42$, $x_{type2}=1.56$, $x_{type3}=3.71$, $x_{type4}=4.20$), the less aggressive ($F=3.333$, $p<.028$, $x_{type1}=3.68$, $x_{type2}=4.67$, $x_{type3}=3.57$, $x_{type4}=0.80$), and the less individualistic ($F=3.643$, $p<.020$, $x_{type1}=2.11$, $x_{type2}=3.44$, $x_{type3}=2.00$, $x_{type4}=1.00$) (see *Figure 6*).

Other significant differences appeared in the social desirability scale (see *Figure 7*): Type 1 subjects proved to be the happiest ($F=2.627$, $p<.062$, $x_{type1}=4.79$, $x_{type2}=3.89$, $x_{type3}=3.29$, $x_{type4}=2.20$), and the most sympathetic ($F=3.127$, $p<.035$, $x_{type1}=5.63$, $x_{type2}=4.44$, $x_{type3}=5.14$, $x_{type4}=3.00$). Type 2 subjects proved to be the most envious

Figure 6. Differences of masculinity in the Bem Sex Role Inventory

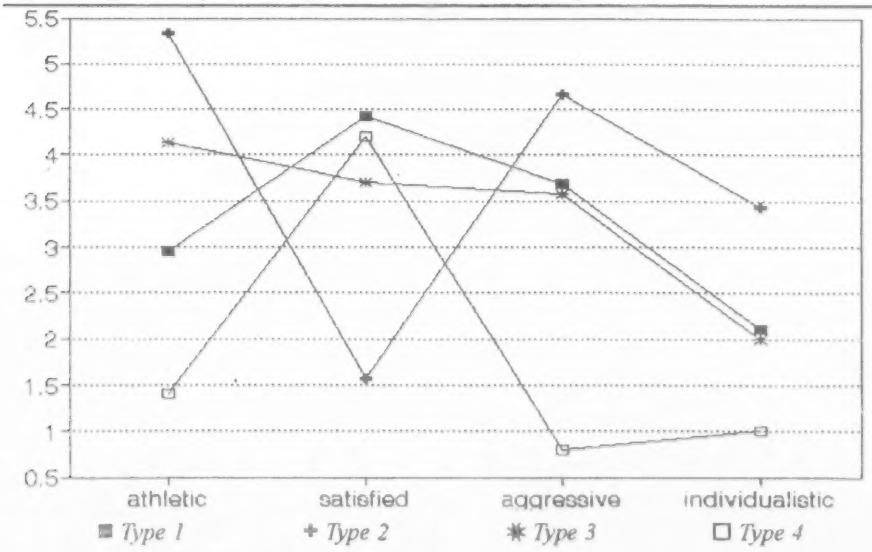
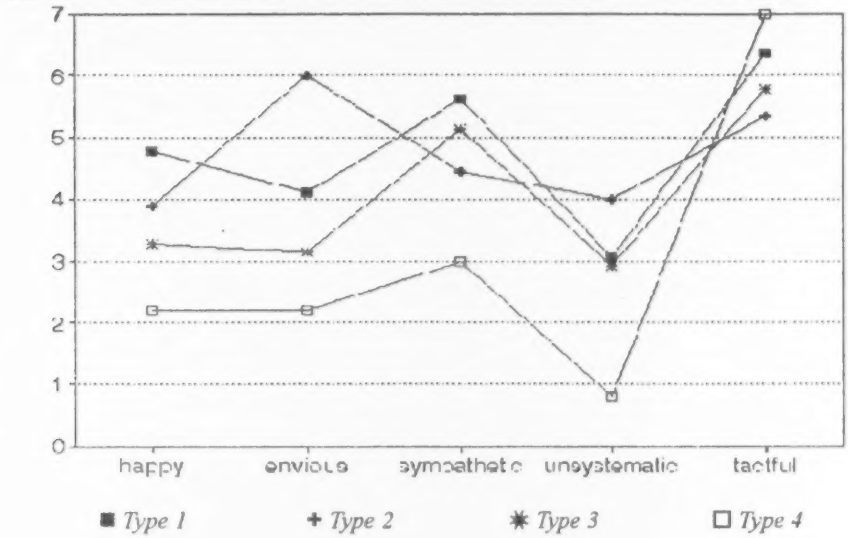


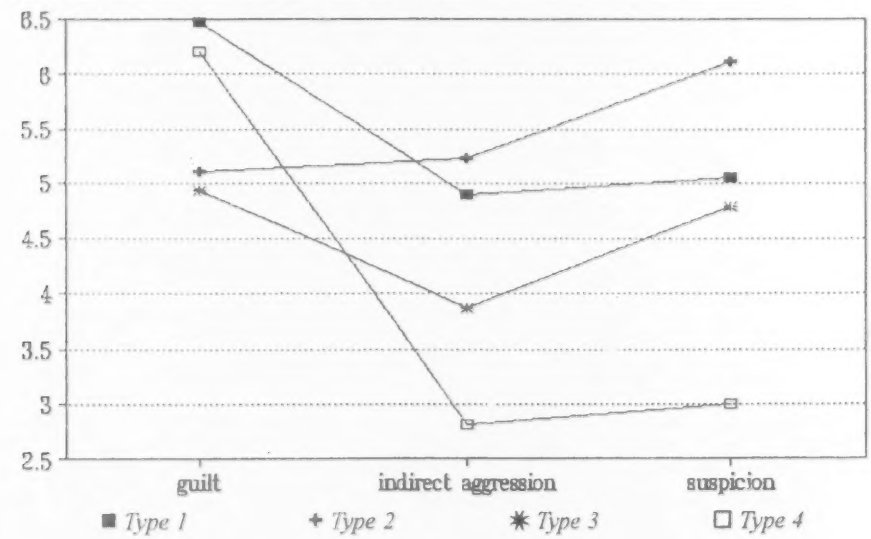
Figure 7. Differences in social desirability



($F=3.834$, $p<.016$, $x_{type1}=4.11$, $x_{type2}=6.00$, $x_{type3}=3.14$, $x_{type4}=2.20$). Type 3 subjects seemed to be the most tactful ($F=2.837$, $p<.049$, $x_{type1}=6.37$, $x_{type2}=3.89$, $x_{type3}=6.29$, $x_{type4}=5.40$). Type 4 subjects were the least happy, envious, sympathetic and unsystematic ($F=2.759$, $p<.054$, $x_{type1}=3.05$, $x_{type2}=4.00$, $x_{type3}=2.93$, $x_{type2}=.80$).

5. There are significant differences among the four types on three subscales of the Buss-Durkee Inventory. Type 1 subjects felt themselves the most guilty ($F=2.750$, $p<.054$, $x_{type1}=6.47$, $x_{type2}=5.11$, $x_{type3}=4.93$, $x_{type4}=6.20$). Type 2 subjects tend the most to act

Figure 8. Differences in the Buss-Durkee Inventory



indirectly aggressively (F=3.304, p<.029, x_{type1}=4.89, x_{type2}=5.22, x_{type3}=3.86, x_{type4}=2.80) and to be suspicious (F=3.110, p<.036, x_{type1}=5.05, x_{type2}=6.11, x_{type3}=4.79, x_{type4}=3.00) (see *Figure 8*)

6. Sociological variables also had significant effects on the subscales of the Buss-Durkee Inventory (see *Table 3*).

These results show that younger delinquents tend to engage the most in indirect assault and they have the least intensive feeling of being guilty. However, the lower qualification one has, the tendency for being involved in indirect assault is more probable. The most irritable are the oldest subjects, and they feel the most being guilty. Living in a marriage increases the tendency for verbal aggression; it is probable that they have had more occasions to learn to be aggressive in this most acceptable way. Single delinquents feel themselves the most guilty.

Summary

In Study 2 older and younger subjects were first separated based on their age cohort, but sociological and other measures proved that this kind of procedure may be very fruitful in grasping similarities and differences between these types.

The types separated were significantly different from each other not only in their self-concept, but in their identification with the masculine role and showing socially desirable behaviours as well. Aggressive tendencies were partly influenced by sociological variables, such as age, family status and education. Their fantasies about their future (possible selves) show the basic motivations they can imagine for themselves after being released.

Discussion

The purpose of the two studies described above was to show the importance of the self-concept in information-processing and organizing the self-relevant knowledge. All we know about ourselves have a central role in evaluating our behaviour as well. The studies proved that the idea of "self-concept types" can be very important in analysing the characteristic features of the self-concept. In Study 2 older and younger subjects were first separated based on their age cohort. However, sociological and other measures proved that this kind

Table 3. The effect of sociological variables on aggressive tendencies (Buss-Durkee Inventory)

1. Age differences	*F*	*50-60 years old*	*45-54 years old*	*35-44 years old*	*25-34 years old*	*16-24 years old*
indirect assault	*3.734*[a]	*3.50*	*0.50*	*4.10*	*4.80*	*4.83*
irritability	*7.298*[b]	*6.50*	*2.00*	*5.00*	*6.47*	*4.39*
feeling guilty	*12.130*[b]	*3.50*	*3.50*	*3.00*	*2.13*	*1.28*
2. Family status	*F*	*single*	*married*	*divorced*	*lives with partner*	
feeling guilty	*8.251*[b]	*1.56*	*2.67*	*3.14*	*2.63*	
verbal aggression	*3.397*[a]	*8.68*	*9.33*	*5.71*	*8.38*	
3. Qualification	*F*	*6 grades*	*8 grades*	*skilled worker*	*technical school*	
indirect assault	*3.270*[a]	*4.33*	*4.96*	*3.64*	*1.00*	

[a] *p<0.01* [b] *p≤0.001*

of procedure helps to interpret similarities and differences between the identified types. The analysis of possible selves shows the motivational background of delinquents. From a rehabilitational point of view more favourable perspectives have those subjects who emphasize the importance and support of a good family and close friends. With this kind of a social support they can get the chance not to get back into jail again in the future.

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Part 2

The social-emotional and social-cognitive development in the Finnish researches

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FAMILIAL INFLUENCES ON CHILDREN'S SOCIAL SKILLS

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INTODUCTION

Effect of family resources on children's social competence

It is said that the Finns are able to be silent in many languages, in other words, are not very skilful in social communication. There is in fact some research evidence (e.g. BASUN-project, Langstedt and Sommer) that Finnish preschool children are less competent socially than children in other Nordic countries. The prevailing social circumstances of children and families may require new ways of coping and social competence. Unemployment is nowadays very common among Finnish families: it has been estimated that about one fourth of Finnish children aged under 18 years encounter parental unemployment (Lapsiraportti 1994).

Family resources can be divided into three broad groups. Socio-structural resources concern the ways wealth, status, and power are distributed to individuals and social groups. The second group of resources exists at the level of interpersonal relationships. For example, family members and close friends provide a pool of resources to draw on when dealing with problems. Then thirdly, entire cultures, by virtue of their shared values, knowledge, and the way of life, allow for the development of some forms of competence at the expense of others (Amato 1987).

Social competence here refers to an ability to generate and coordinate flexible, adaptive responses to demands, and to generate opportunities in the environment and to capitalize on them (Waters and Sroufe 1983). Social skills are particularly important in the early and more advanced stages of relationships and different social contexts. For example, in peer groups, they assist children in getting friends and gaining social status. At school, good social skills contribute to the educational achievements. It has been suggested that isolated and rejected children may be at risk of later emotional and social problems (Parker and Asher 1987, Pölkki 1990).

The "Children's competence and growth networks in the Nordic Countries" project has studied social and academic competence and risk factors for psychosocial problems among 10-12-year-old children (Pölkki et al. 1994, 1995). We will report our comparative results later with our Nordic colleagues. In the following I analyze the influence of socio-structural and interpersonal family resources on children's social skills.

Socio-structural resources and children's social skills

Although many of the macrosocial determinants of academic competence and school success are known, there is still a paucity of studies analyzing the mediation of socio-structural influences, especially the parents' education, occupation and unemployment, on children's social skills. These resources of the family may progress or limit the formation of the basic trust and the possibilities for the children to participate in group activities, and also influence their social competence.

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Parents with higher education can teach their children social skills that help them to perform effectively in various social roles and situations. While parents with high socio-economic status can serve as models of success and power for their children, parents with lower socioeconomic status may convey to their children feelings of inadequacy, helplessness and pessimism (Amato 1987). Many studies have also found that the children of parents with low socioeconomic status are less competent in social skills, for example they have more aggressive interaction styles than do children belonging to high socioeconomic status groups (e.g. Ramsey 1988, Patterson et al. 1990). Fergusson et al. (1990) have emphasized that unfavourable socioeconomic factors may increase the vulnerability of children to different kinds of problems in the long run.

The research on the impact of parental job and income loss on children, which is largely from the 1930s, 1980s and 1990s, is limited but growing. The older studies indicate that paternal job loss has negative influences on the child's development primarily through the changes it produces in the father's behaviour and interaction with the children (e.g. Elder 1974, 1979). Several economic and social changes since the Great Depression are thought to mitigate the negative consequences of job and income loss today in welfare societies. These changes include improvements in the general economic situation, in the level of social security and unemployment benefit, and in attitudes towards the unemployed. However, it is not known whether these changes help the children of the unemployed. (McLoyd 1989, Barling 1990).

Family processes and children's social skills

The mediating mechanisms for social skills are the family atmosphere, parental awareness of parenthood, and parenting styles which reflect the cultural and social environment the family is living in (Bronfenbrenner 1986, Saunders and Green 1987). Baumrind (1989) has presented that the combination of guidance by the parents and good family atmosphere is a good background for high social competence. The concept of parenthood can be seen as a mediating link between children and society. It entails realizing that one has an educator's role and the goals, values, principles, attitudes and methods for child rearing (Takala et al. 1979).

The pioneering studies conducted by Elder and his colleagues (1974, 1979, 1984, 1985, 1988) of families that experienced job loss during the Depression in the 1930s indicated that unemployed fathers became more irritable, tense and explosive, which in turn increased their tendency to be punitive and arbitrary towards their children. The parenting behaviour of the mothers generally was not influenced by the economic hardship.

The psychological condition of the unemployed parents and the economic situation of the family may also cause stress in children, influencing their moods and leading to problems with peers. The children of unemployed parents have been found to be less sociable and more distrustful (Buss et Redburn 1983), aggressive (Elder et al. 1985), more depressed and lonely (Lempers et al.1989), and to have lower self-esteem (Isralowitz and Singer 1986) than those of employed parents. Parental job loss and economic problems in the family can also increase peer affiliation and make children susceptible to negative peer pressures (Galambos and Silbereisen 1987, Flanagan 1988). However, Friedeman (1992) did not find any differences in social behaviour between the children of employed and unemployed fathers.

We know that children of unemployed parents have more serious problems if the family lacks cohesion, if the marital relations of the parents are poor, and if the parents suffer from psychic problems. It is, however, difficult to make firm conclusions concerning the effects of parental education, occupation and unemployment on children's behaviour and

development, due to the paucity of longitudinal studies with comparison groups and children as informants.

Aims of the study

The aims of the study were to answer the following questions:

1. What is the relation between the socioeconomic status of the family (education and occupation of the parents) and the children's social skills (especially cooperation, assertiveness and self-control)?
2. How does the acute unemployment of the parents and financial problems influence the children's externalizing (e.g. aggressiveness) and internalizing (e.g. loneliness) psychosocial problems?
3. What familial processes (especially family atmosphere and social relations) and aspects of parental awareness of parenthood (maturity demands for the child, significance of child rearing) predict children's social skills and psychosocial problems?

Subjects

The data were collected as part of the "Children's competence and growth networks in the Nordic countries" project, which is supported by the Nordic Council of Ministers and, in Finland, by the Academy of Finland (for details see Pölkki and al. 1994). The Finnish cohort consisted of 492 10-year-old children living in the city of Kuopio. The sample represents Finnish urban children and their families. The first data collection took place in spring 1993 (87 % of the families responded).

At the time the data were collected 41 fathers (10 % of whom filled the questionnaire) and 49 mothers (12 %) were unemployed. Acute unemployment was unevenly distributed in different socioeconomic groups. Seventy percent of the unemployed fathers and 39 % of the mothers had only eight years compulsory education. Sixty eight percent of the fathers and 27 % of the mothers were blue collar workers. Both of the parents were unemployed in six families. About half of the families having one or both parents unemployed had serious economic difficulties.

Methods

The children's externalizing (e.g. lack of concentration, aggressiveness) and internalizing (e.g. depression, loneliness) psychosocial problems were estimated by their teachers using Gresham and Elliot's (1990) Social Skills Rating System. The reliability of the subscales has proven to be good (Cronbach's alpha coefficients varied from 0.91 to 0.96) and the validity is estimated to be satisfactory (for details see Pölkki and Kukkonen 1995).

The children rated their social self-esteem by using Harter's (1982) Scale for Perceived Social Competence (e.g. the child has a lot of friends and is liked by other people). The reliability of the scale (Cronbach's alpha) was 0.75. The children also answered questions concerning their worries (e.g. school, peers, financial situation of the family, parental unemployment and quarrels at home).

The family atmosphere questionnaire (Julkunen 1994) filled in by the parents consisted of 10 items (e.g. "My family supports me in all my efforts", "The atmosphere of our family is very harmonious"); its reliability (Cronbach's alpha) was 0.80. The parents also answered questions concerning their work situation, unemployment, financial problems, the target child's relations with other people in the family, unanimity about education, maturi-

Table 1. Predicting children's social skills (rated by parents and teachers) and psychosocial problems (rated by teachers); step-wise regression analysis.

	Social skills		Psychosocial problems
	Parents	Teacher	Teacher
Gender	*n.s.*	*.34* [c]	*-.31* [c]
Father's education	*n.s.*	*n.s.*	*n.s.*
Mother's education	*n.s.*	*n.s.*	*n.s.*
Paternal unemployment	*n.s.*	*-.16* [b]	*.20* [c]
Maternal unemployment	*n.s.*	*n.s.*	*n.s.*
Family atmosphere	*n.s.*	*n.s*	*n.s.*
Good relations	*.15* [b]	*.13* [b]	*-.15* [b]
Unanimity on education	*.29* [c]	*n.s.*	*n.s.*
Maturity demands	*n.s.*	*.13* [b]	*n.s.*
Significance of education	*.25*	*n.s.*	*n.s.*
Explained	*15%*	*19%*	*18%*

[a] *p<.05* [b] *p<.01* [c] *p<.001*

ty demands on the children (e.g. domestic work, taking care of the school work) and significance of child rearing in areas like personality development, learning and social skills.

Results

Predicting children's social skills and psychosocial problems

First, the relations between socio-structural family resources (parental education and unemployment), family processes, socialization variables and the children's social skills and psychosocial problems were analyzed using stepwise regression models.

The results showed (*Table 1*) that the best predictors for high social skills ratings as rated by the teachers were gender (girls received higher ratings), father's employment and maturity demands on the child. These explained 19 % of the total variance. The best predictors for high social skills ratings as rated by the parents were the significance of child rearing and amenity about child rearing. These explained 15 % of the variance. In other words, it turned out that the teachers and parents based their ratings on different phenomena. When the regression models for the teachers' ratings of the children's psychosocial problems were scrutinized, gender (male), the child's negative social relations and father's unemployment were revealed as the best predictors. These explained 18 % of the total variance.

Because the regression models explained only a small amount of the total variance, the analysis of the results was continued by the one-way analyses of variance.

Socioeconomic factors of the family and children's social skills

Table 2 shows that the fathers' education and occupation are more related to the children's social skills than those of the mothers'. A larger number of differences between the groups based on the education and occupation of the parents were found in the teachers' than in the parents' ratings.

When the teachers' ratings were examined on the subscale level, it was found that the children of more educated fathers were significantly more cooperative, had better self-control and fewer externalizing problems like aggressiveness. There was also a trend that the children of fathers' having high social status were more assertive, e.g. initiative, and had a

Table 2. Socioeconomic factors of the family and children' s social skills (based on teachers' ratings). Continued with "Psychosocial problems" on page 108.

	Social skills		
	Boys	Girls	All
Father's education			
Seven years	82.1 (16.2)	95.4 (16.2)	88.3 (17.5)
Nine years	84.1 (15.7)	91.4 (14.7)	87.8 (15.6)
Twelve years or more	88.6 (16.3)	99.0 (12.1)	93.8 (15.2)
F (2,398)	2.71 p<.07	3.69 p<.03	4.84 p<.01
Mother's education			
Seven years	83.0 (18.3)	93.8 (16.3)	88.1 (18.2)
Nine years	81.9 (14.0)	96.7 (14.2)	89.0 (15.9)
Twelve years or more	86.8 (16.4)	95.4 (14.5)	91.1 (16.0)
F (2,428)	n. s..	n. s..	n. s.
Father's occupational status			
Blue collar worker	83.5 (15.4)	92.4 (14.8)	87.9 (15.7)
Lower white collar	81.7 (20.0)	95.2 (15.0)	88.3 (18.9)
Upper white collar	86.5 (14.5)	98.5 (14.2)	92.3 (15.5)
Entrepreneur	86.5 (11.3)	100.2 (14.4)	94.3 (14.7)
F(3,398)	n. s..	2.60 p<.05	2.71 p<.04
Mother's occupational status			
Blue collar worker	82.5 (15.5)	92.9 (14.6)	87.2 (15.9)
Lower white collar	82.8 (16.2)	96.5 (14.6)	89.5 (16.9)
Upper white collar	90.3 (16.5)	95.0 (16.8)	92.6 (16.6)
Entrepreneur	84.0 (14.7)	92.3 (15.2)	89.7 (15.1)
F(3,428)	n. s..	n. s..	n. s.
Father's actual unemployment			
No	86.0 (15.5)	96.0 (14.5)	91.1 (15.8)
Yes	75.6 (15.3)	90.3 (17.5)	82.4 (17.8)
F(1,398)	8.46 p<.00	2.40 p<.12	10.35 p<.00
Mother's actual unemployment			
No	83.7 (16.2)	95.5 (14.7)	89.6 (16.6)
Yes	80.2 (14.2)	95.3 (18.6)	87.3 (17.9)
F(1,428)	n. s..	n. s..	n. s.
Economic problems of the family			
No	83.9 (16.1)	96.7 (14.1)	90.0 (16.5)
One year ago	86.5 (19.4)	99.7 (15.8)	94.0 (18.3)
Actual	81.3 (16.5)	87.3 (16.4)	84.6 (16.5)
F(1,428)	n. s..	5.46 p<.00	3.33 p<.04

Table 2. Socioeconomic factors of the family and children's social skills (based on teachers' ratings). (Continued from page 107)

	Psychosocial problems		
	Boys	Girls	All
Father's education			
Seven years	35.4 (9.4)	28.8 (7.1)	32.3 (9.0)
Nine years	34.4 (10.1)	30.2 (6.1)	32.3 (8.6)
Twelve years or more	32.0 (9.0)	26.8 (4.1)	29.4 (7.4)
F (2,398)	2.09 p<.13	4.44 p<.01	4.72 p<.01
Mother's education			
Seven years	34.5 (9.9)	29.6 (7.1)	32.2 (9.0)
Nine years	35.8 (9.3)	28.6 (6.0)	32.3 (8.6)
Twelve years or more	32.6 (9.3)	27.9 (5.6)	30.2 (8.0)
F (2,428)	2.22 p<.11	n. s.	2.67 p<.07
Father's occupational status			
Blue collar worker	34.4 (9.2)	29.5 (6.8)	32.0 (8.5)
Lower white collar	36.9 (11.9)	28.7 (6.3)	32.9 (10.4)
Upper white collar	32.3 (8.1)	27.6 (5.7)	30.0 (7.3)
Entrepreneur	33.2 (7.3)	27.5 (5.1)	30.0 (6.7)
F(3,398)	2.03 p<.11	n. s..	2.50 p<.06
Mother's occupational status			
Blue collar worker	34.1 (8.8)	28.8 (5.1)	31.7 (7.7)
Lower white collar	34.9 (9.9)	28.7 (6.7)	31.8 (9.0)
Upper white collar	32.7 (9.5)	28.6 (6.2)	30.7 (8.3)
Entrepreneur	33.8 (7.6)	28.5 (4.9)	30.2 (6.1)
F(3,428)	n. s.	n. s.	n. s.
Father's actual unemployment			
No	33.3 (9.4)	28.5 (5.8)	30.8 (8.1)
Yes	39.7 (9.3)	31.8 (9.3)	36.2 (10.3)
F(1,398)	9.3 p<.00	4.54 p<.03	15.05 p<00
Mother's actual unemployment			
No	34.9 (9.5)	28.8 (6.1)	31.9 (8.5)
Yes	35.3 (9.2)	30.5 (8.3)	33.3 (9.0)
F(1,428)	n. s.	n. s.	n. s.
Economic problems of the family			
No	34.2 (9.4)	28.1 (5.7)	31.3 (8.4)
One year ago	1.9 (8.6)	29.0 (8.4)	30.3 (8.5)
Actual	37.1 (10.7)	32.6 (7.3)	34.7 (9.2)
F(1,428)	n. s..	6.35 p<.00	4.00 p<.02

self-assured way of behaving (e.g. "Initiatives conversations with peers", "Appropriately questions rules that may be unfair").

Table 2 also shows that the social skills of the sons of unemployed fathers were poorer than those of sons of employed fathers. These boys also had significantly more psychosocial problems than did children of employed fathers. Daughters of unemployed fathers had fewer problems than did boys in the same situation. They had, however, more externalizing problems than did daughters of employed fathers.

Economic difficulties (with or without unemployment) were associated with the girls', but not in boys' psychosocial problems at school e.g. restlessness and weak self-control.

Role of family processes and socialization practices in children's social skills

The results indicated that the associations between social skills and family processes like family atmosphere and social relations were rather low. However, the children with high self-control and cooperation ability had better social relations at home and more demands on independent action (e.g. domestic work) than those with poor social skills.

Only a few differences were found in the family processes and socialization of families of differing socio-economic status. The significance of child rearing (e.g. different abilities, personality) was emphasized more by the higher educated fathers and mothers than by the less educated ones. The maturity demands on the children (e.g. participating in domestic work) were mentioned more by the parents having higher occupational status than by those having lower occupational status.

The atmosphere of the families where one parent was unemployed was significantly more tense than that in families with working parents. The relationship between unemployed father and son and unemployed mother and daughter were less satisfactory than that between employed parents and their children. More unanimity on child rearing was found in families with unemployed fathers than those where fathers were employed. Families with serious financial problems were characterized by unanimity on child rearing, poor social relations and tense family atmosphere.

Discussion

We found that the father's education and occupation were as significant for children's social skills as they have been shown to be for their academic skills (e.g. Kuusinen 1990). Socio-economic factors and children's gender were, however, recognized more by the teachers than by the parents. Children of high socio-economic status parents benefit from their home environment and have skills highly valued at school. Their parents may be powerful role models who themselves have access to new information and have influential social networks. Influence of peers is also important for the development of social skills during middle childhood (Amato 1987).

Parental unemployment has been shown to effect children and adolescents through disruption of parental behaviour and interpersonal interaction (Conger and al. 1992). In our study both maternal and paternal unemployment were associated with tense interpersonal interactions within the family. Studies carried out elsewhere have often underestimated the effects of maternal unemployment on family life and on family members.

Unemployment is likely to increase contact between parents and their children. This can provide an opportunity for parents and children to find compensation for an otherwise depressing situation. However, research (e.g. Johnson and Abramovitch 1986) indicates that blue-collar fathers in particular find that financial worries reduce their ability to enjoy

the increased time they can spend with their children. They may also feel incompetent, especially with small children. Most of the unemployed fathers in our investigation, as in many others (e.g. McLoyd 1989), were blue-collar workers with quite limited education. Severe financial problems were found in half of the families with one or two unemployed parents in 1993.. This suggests that we must differentiate between the effects of poverty and those of unemployment. It is also probable that some of the unemployed parents with severe economic problems did not fill our questionnaires.

The sons and daughters of unemployed fathers had similar psychosocial problems, e.g. both had depressive moods and felt lonely. There were, however, gender differences in the reactions of children in families having financial problems. Some studies (e.g. Belle 1989) suggest that girls are more sensitive and responsive to the emotional states of those around them than are boys and they may be at greater risk of adjustment problems as a result of parental negative moods.

During periods of mass unemployment such as the one in Finland the people should be helped to maintain their self-esteem as persons and parents particularly when they are unemployed. The questions connected with unemployment should also be discussed at school and support should be offered to the troubled children of unemployed parents. Children may feel that their parents are to blame for losing their jobs and may feel insecure unless properly informed and supported.

In the studies by Elder (1974, 1979) the adolescent boys of the unemployed father became early independent and were quite resilient in later life. Newer longitudinal studies made elsewhere (e.g. Werner and Smith 1992) suggest that paternal unemployment is interwoven with many negative life events and problems of children and adults. Our results will be checked and completed by using the re-evaluation material collected in 1995, when the children were 12-13 years old since the investigation of the impact of parental unemployment on family life and on children needs a longitudinal design.

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LIFE AS A SINGLE FATHER

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INTRODUCTION

The dissolution of marriage is a life event, which has a profound impact on families, producing stress and changes in both adults' and children's everyday life. Actually the divorce and the death of spouse (or mother/and father) are ranked as two of the most stressful events in both adults' and children's life (Holmes and Rahe 1967; Hurme 1981). According to Finnish law, the dissolution of marriage will occur when one of the spouses dies or when the spouses are granted a divorce. In fact the marriage will also be dissolved when the couple spontaneously starts living separately. In all Western countries divorce rates have been increasing enormously during the last decades. Thus most of us have to meet and handle consequences of this life change on some level: as a child, as a parent, as a step parent, as grandparents etc.

Following the divorce mothers are taking responsibility for child care more commonly than fathers although e.g. in Finland the shared custody is the most prevailing legal principle in the divorce conciliation (Komiteanmietintö1992: 12). The view that mothers are especially suited – both biologically and psychologically – to raise children is still the prevailing implicit theory of child development, which is generally believed not only by the courts but also by the parents themselves. It is tightly based on the psychodynamic theories of child development emphasizing the special meaning of mother-child relationship during early childhood and the meaning of this relationship as a prototype of child's later human relationships (Lamb 1976; Parke 1981; Russell 1986).

According to the psychodynamic theory both girls and boys primarily develop their first emotional ties with their mothers. The father as a role model and as an object of identification becomes important in later years (in age 3-5), when boys begin to draw away from their mother and begin to identify with their father. Boys' development has been seen especially vulnerable, if the father is lost during these years causing developmental disorders in boys' identity, moral and cognitive development (Freud 1964).

Also in earlier theories of socialization the parents have different roles in the relation to the child's development. Parsons (Parsons and Bales 1955) describes the child's social environment as a system between the mother and the father, where during the first three years the mother has both the expressive (caring, empathy) and the instrumental (competency, achievement) role. After this age the father takes the instrumental task and the mother stays in her expressive role. The differentiation of family roles does not only reflect the parents different tasks of educators but also the differentiation of sex-roles.

Although recent research has shown the multisystemic characteristic of the early relationships and the father's competence as a parent and caretaker, its still very rare that fathers are seeking and getting custody of their children (O'Brien 1992; Robertson-Cross 1990; Schaffer and Emerson 1964). The Finnish law emphasize the importance of shared custody, which is also the most common way to order the responsibility of child care in the divorce. In practice the child however lives with the other parent, usually the mother (*Table 1*).

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Table 1. Children living in different types of families (31.12. 1990)

The type of the family	*Age of the children*		
	0-6 years	*7-17 years*	*18-34 years*
Married couple with children	*80 %*	*81 %*	*79 %*
Open marriage with children	*11 %*	*6 %*	*3 %*
Mother with children	*8 %*	*11 %*	*15 %*
Father with children	*1 %*	*2 %*	*3 %*
Total amount of children	*430 000*	*698 000*	*268 000*

The dissolution of marriage and its meaning for different family members is a widely documented and investigated area. Studies concerning especially the developmental status of children and the impact of divorce on child's development are abundant. We know also quite a lot of the meaning of divorce from the perspective of mothers' and about fathers' role when mother has custody. Since parental custody is still a relatively rare phenomenon, our understanding of its meaning is still rather limited.

The purpose of the paper is to describe "the life as a single father". The study focuses on fathers' descriptions and experiences concerning in the everyday life after the dissolution of marriage; how fathers have organized their everyday life , how they handle everyday problems with children, what is the meaning of custody, how they experience their task and duties as the educator and as the father.

Subjects

13 single fathers with children aged between 8 months and 8 years were in-depht-interviewed in their homes. *Table 2* gives some basic information about the families.

The reasons for seeking or getting child custody were varied. Three fathers were taking care of the child after their wife had died. In four families the father and the mother had decided together the father's custody. Three fathers defined themselves as "a better parent" fighting in court for his rights to get child custody. There were also such families (N=3) where the mother had simply run away and had left the children home with the father. The size of the families varied from 1to 3 children. The total amount of children was eighteen: 13 girls and 5 boys. Three of the mothers had a regular contact with the children and participated in the child care in different ways (see *Table 2*).

Results

The dissolution of marriage is often viewed as a single event or a crises, but this view may be too simple. It is more useful to think of it as *a sequence of experiences involving a transition in the life*. A period of conflict and disagreement among family members often precedes the separation.

"Well, it came to me so all of a sudden. I just could not kind of anticipate, so that it came, like, too quickly. So that, well , I have to say that I was for a while, like, hey, what is happening here. Like, I would not have wanted it to go that way. Well, you just had to face the facts then and you had to think,

Table 2. Single fathers and their families

	sex and age of child (in parentheses: age during dissolution)	reason for custody	contact with mother
Family A	girl, 6 years (3 years)	common decision	regularly 2-3 per week
Family B	girl, 5 years (1 years) boy, 6 years (2 years)	left	irregularly, very rare
Family C	boy, 4 years (1 years) girl, 5 years (2 years) boy, 7 years (4 years)	left	irregularly, once in year
Family D	boy, 7 years (4 years)	quarrel in court	regularly, once per month
Family E	girl, 5 years (3 years)	death of mother	
Family F	girl, 4 years (2 years)	quarrel in court	irregularly, very rare
Family G	girl, 6 years (3 years)	common decision	irregularly, rare
Family H	girl, 6 years (3 years)	death of mother	
Family I	girl, 10 month (6 month)	death of mother	
Family J	boy, 6 years (3 years) girl, 8 years (5 years)	common decision	regularly, once in week
Family K	girl, 5 years (4 month)	left	irregularly, rare
Family L	girl, 6 years (2 years)	quarrel in court	irregularly, rare
Family M	girl, 4 years (1 years) girl, 6 years (3 years)	common decision	regularly, once in week

what now, what I'm gonna do now. And there was also this house being built at the same time, we had just started it, so that is why it seemed kind of weird that things went this way. The wife hits the road when we was building a house of our own. you know. I was not shocked, what can you be shocked about in this world any more. Well, maybe just a little, we were married for seven years, though, we had known each other for twenty, and we were doing well enough, there were no big fights expect the last year when everything suddenly changed. So, well you had to consider who am I, what is my name anyway. That kind of stuff."

After the separation there is usually a lengthy period of disorganization and disruption and at the same time a search for new strategies for handling the new and different life situation. New schedules are being tried out, moving to new homes and neighbourhoods occur often, visitation patterns are being established and new budget tactics are being explored. Eventually a new phase occurs in which the single parent family settles down on a new but stable and organized life style (Parke 1981).

> *"Well, it is a strong mental stress, you know. Like, when you think about the circumstances here, there was no drain and the water there was only the stove to heat the house with, an, I was being evicted from there an before I could get the loan and buy this home, so the situation was real bad. But luckily I have so many relationships and friends and such support that you do not have to be quite alone here. You just think about it, anyone, all of a sudden you just start dressing three little ones for kindergarten in the morning, in a winter like that, it is no fun any more. And the money is another matter. You have the other person to pay out from the furniture, that you already paid for once, all the appliances. Everything is counted and then you go to work and pay the half of the second time an...There you have your own things then. My wife never gave a single penny during these years, but I gave here 8000 marks approximately."*

A variety of factors such as the cause of divorce (dissolution), the financial status of the family, the age and the sex of the children, the kind of separation settlement and especially the custody arrangement and different forms of social support available from relatives, friends and neighbours can have influence how quickly and how successfully families adjust to divorce.

Fathers participating the study were interviewed approximately 2-3 years after the dissolution of the family. Although most of the families had on some level adapted with the new life situation, the experiences connected with the divorce or death of wife were still evoking strong emotional reactions, when the dissolution was especially unexpected. In those families where mother had simply run away, fathers first felt themselves helpless. Because the mothers had no regular contact with children, fathers had to organize the everyday life in a new way. Actually the demands of everyday life was in a way a mean to cope with the stressful situation. The fathers who had quarrelled in court about their rights to child custody described the process of divorce in details emphasising themselves as "better" parent, whereas the wife was labelled with more negative characteristics. After divorce the contact with mother was usually irregular and rare in these families as well. When father's custody was based on common decision, the relationship with the parents and the child was quite intensive and the mothers were participating in child care.

Life as a single father had different meanings for the interviewed fathers . One part of them pointed out the *single parenthood as an economical and an educational responsibility*. Taking care of children meant responsibility, which they had to carry out alone. Sometimes this evoked also anxiety and fathers were doubtful if they can manage it.

> *"Well, of course it means something like, actually it means a lot as a whole in many ways. Economic responsibility and responsibility for the boy and the school for one thing....and generally everything about making ends meet, we do things together, like thinking about that. We have so many things, we do together, so it is so terrible, so you do not have to think about it that way at all."*

Being a single father meant also *restrictions for one's own private life.* There was no time for own hobbies or to meet old friends.

> *"Well, it does bring, if you think about your own life at least, it does bring lots of restrictions. And then you have to admit that all this domestic work, with household and all, well you could not do it. but I guess you learn as the time passes...well, but many times you think about whether you can be the mother and father at the same time, it is kind of impossible to be two persons at the same time. But on the other hand, there has never been any greater difficulties. Hobbies is one thing I had to forget when my daughter came to live with me. You had to, you could not always take her with you, the games and everything were often so late that you just had to stay away. And meetings and stuff, actually there are not any now... I go playing once a week, but that is it actually. All these memberships and such things, I have abandoned, There is no time anyway"*

Some of the fathers pointed out the meaning of *single parenthood as a possibility to one's own emotional growth.*

> *"Well I have found that very important. I' veg taken care of such a little kid that many have never had such a small kid. It only weighed 2 kilos 300. So, you have something with whom to do things and take care of. I wanted it to sleep in my bed, but I was kind of afraid that it might develop a habit out of it."*

Although many single fathers – just like single mothers experienced considerable stress as they tried to coordinate the multiple tasks of housework and the children, they seemed to master these new tasks, some of them with the help of the relatives and friends. They had learnt to manage the tasks of child care and the routines of everyday life quite effectively, although many of them were not participating the child care very actively before the separation. Most of the fathers were taking care of their children completely and effectively. They coped with the daily cores of homework. They cooked, cleaned, did the shopping and managed their home. *If they did not manage something before, they had learned to do it.*

In the studies concerning child's adaptation after divorce the sex of child has been seen as critical factor predicting general adjustment of children. The question arises whether the boys and the girls show the same pattern of adjustment when father has the custody? Or does a different pattern emerge with boys in paternal custody showing less disrupting than girls? The earlier results (e.g. Santrock and Warshak) suggest that the children living with the opposite sex parent are less well-adjusted than children living with the same sex parent. This theme was also prominent in discussion with the fathers living with girls who reported about *general feeling of inadequacy and fear of failure as a male.*

Children in paternal custody have different kinds of lives and experiences than those living in maternal custody or in families with both parents. Since men are typically perceived as less capable caregivers than women-research evidence aside , it would not be surprising if the fathers raising children by themselves would receive more unsolicited help. This was also true in this study. It seemed that the single fathers tended to have many additional caretakers, such as grandmothers, baby-sitters, relatives, and friends. Although in these families the children did not see their mothers very often they had a contact with other adult females almost daily.

Conclusions

The life change such as the dissolution of marriages often implies a total re-evaluation of values, a situation in which one has to decide what is are important, and what is not. Everything up to that time may have to be questioned and the continuation of life may seem uncertain because of the lack of predictability. Usually a life change also implies a re-evaluation of resources, because the individual is in a situation where his habitual patterns of behaviour are no longer valid. The situation may also be confusing because the attitudes of other people change as the individual's role changes – he becomes a widower or a single parent. In fact, an immense feeling of loneliness and helplessness is often connected with the life change despite the fact that the individual is surrounded by other people (Hurme 1981).

The dissolution of marriage means a removal of the emotional, social and often economic support. On the most concrete level it means the total reorganization of the everyday life. In marriage, husband and wife have usually shared the everyday tasks and supported each other. When the fathers have to meet alone the new demands and responsibilities, the responsibility can become an important focus for their own growth. The children do not only need their fathers but the fathers also need their children. In taking care of his children's needs, a man learns to take care of his own.

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FEAR IN CHILDREN'S LIVES

Study of 5-6-year-old children's fears and coping strategies

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This study is a part of a project called "Insecurity: causes and coping strategies". The purpose of the project is to describe and compare forms of insecurity and coping mechanisms in different age groups in Finland, Estonia, Poland, Russia and Germany. The data concerning 5 to 12 year-old children were gathered in Estonia and in Finland. This study deals with fears and coping strategies of 5-6-year-old Finnish children. In the following paper we present and discuss the self-reports of fears and coping strategies of 5-6-year-old Finnish children. The purpose of the paper is to illuminate the children's subjective views of fears and coping with fears in their lives.

The term *"fear"* has multiple meanings, depending upon one's theoretical perspectives. In this study fear is seen as a normal phenomenon in people's lives. Fear is one of our basic emotions, and it is connected with situations that an individual perceives as threatening or harmful. It is common to classify emotions as negative or positive. Such emotions as happiness are often seen as positive and emotions like fear or anger are seen as negative (e.g. Stein and Jewett 1986; Fischer et al 1989). In our point of view fear is not a negative emotion. There are situations in our lives when it is almost unavoidable to feel afraid. Feeling afraid can have different kinds of functions in people's lives. Fear for instance can motivate the child to learn new forms of behaviour.

Scientific interest in children's fears is not new. Children's fears have been studied from infancy to adolescence. In many investigations it has been demonstrated that fears are not uncommon during childhood (e.g. Ollendick et al. 1985; Davidson et al. 1990; King et al. 1989). However, there have been few studies where young children themselves have reported their fears in their own words (e.g. Bauer 1976; Lentz 1985a and 1985b).

Gender differences recorded in the reports of children's fears have been rather consistent. The majority of studies have shown that girls report more fears than boys (e.g. Bauer 1976; King et al. 1989; Ollendick et al. 1989; Davidson et al. 1990) or that parents report girls to be more fearful than boys (e.g. Draper and James 1985; Bondy et al. 1985). Some studies have analysed the *developmental changes* in children's fears. These studies (e.g. Bauer 1976; King 1989) show that younger children appear to express more undifferentiated fears (e.g. ghosts and monsters) whereas older children express more realistic and future-oriented fears.

In stress-theories (e.g. Lazarus and Folkman 1984; Rutter 1988) the concept of *coping* usually implies successful mastery or management of difficult life circumstances. Coping is usually defined as a reaction to a stressful or fearful situation or stimulus.

However, it can be argued, that neither fear nor coping are mere reactions to a feature of environment or an internal stimulus. Emotion (like fear) and coping are one, they form

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a dynamic system. Emotion and coping are in a constant process. That is to say, emotion and coping cannot be separated apart, they presuppose each other.

The majority of research describing children's coping has based upon clinical case studies and parental report measures. Moreover, the research of children's coping has focused on children who have experienced extraordinary or extreme events (e.g. death of a parent or sexual abuse). (e.g. Caty et al. 1984; LaMontagne 1987; Elizur and Kaffman 1986.)

In theoretical perspectives of coping there has been a distinction between coping conceptualized as a personality trait and coping conceptualized as a situation-specific process. The research of coping modes has focused mainly on individualistic factors, and has ignored the role of environmental and situational factors (e.g. Rutter 1988; Lerner and East 1984). However, current research has shown that coping varies across situations as a function of varying situational demands (Folkman 1984). When we want to understand the ways children cope with fearful situations, we have to consider the interaction of both individualistic and situational factors. The interactionist viewpoint (Band 1988) suggests that personality traits (e.g. temperament) may interact with the appraisal and perception of situational demands.

Reports of children's coping show, that girls use more often social support and emotional coping strategies than boys (Ryan 1989; Rossman 1992; Wertlieb 1987). It has also been documented, that boys report coping in a relatively more individualistic or self-centered way (Wertlieb et al. 1987). Developmental differences reported show, that younger children appear to rely more often on behavioural coping strategies than older children. Moreover, older children's coping strategies tend to be more active than younger children's (Trad and Greenblatt 1990; Rutter 1981).

The research questions posed here were:

1. What kind of fears 5-6-year-old children have?
2. What kind of coping strategies 5-6-year-old children use?
3. Do 5-6-year-old children's fears and coping strategies differ by sex?
4. Do children's coping strategies vary in different fearful situations? To what extent children's coping strategies are situation specific?
5. Are children's fears and coping strategies connected with difficult experiences in their close relationships?

METHOD

Participants

The sample of this study consists of 240 5-and 6-year-old children in the province of Kuopio, Finland. Fifty percent of the children were 5-year-old and fifty percent 6-year-old of age. Fifty percent of the children came from the city of Kuopio, and the other half from two rural municipalities. Ninety-three percent of the children were interviewed.

Procedure

Interviewing children in general and especially about sensitive topics, such as their fears is a difficult and challenging method. Naturally the restrictions of children's cognitive and verbal capacities set some limitations. For example the way children interpret the interview situation, the questions posed etc. is very different from adults' interpretations. These were facts, which we had to consider when developing the research methods. But it must also be remembered that we cannot receive information of children's subjective experiences unless

we ask them these things. The information received from children themselves is unique and cannot be fully replaced by information received from other sources (such as parents or teachers).

The interview consisted of open-ended questions and a projective picture test. The open-ended questions dealt with children's close relations, fears, worries, nightmares and happy aspects of their lives. In the projective test, eight pictures of fear-provoking situations were presented with a short explanatory story. The pictures represented fears that are connected with human relations and different types of social fears. The children were asked to tell how much the child in the picture is afraid and what he/she might do in this situation.

Children were asked an open-ended question: "What are the things that you are afraid of?". After each object of fear that children expressed, the coping strategies were asked in the form: "What do you do when you are afraid of that?" or "What makes you feel better then?" If needed, children's attention was called to such possible objects of fears as television programs, nightmares, animals and fears related to day-care.

In measuring the intensity of fears both in the open-ended questions and in the projective test we used the technique developed by Carpenter (1990) where children can assess their experience of fear and pain (Children's Global Rating Scale, CGRS). The interviewer, while talking with the child about causes of fear, showed the child a picture in which there were three different lines: the upper line (black) designated great, the middle one (red) average and the lower one (green) minimal fear. Thus the child had the opportunity to show how much afraid he/she was in the case of each fear.

Setting of interview. All the interviewers were carefully trained (Lahikainen et al. 1995, 119-120). The interviewers tried to arrange a preliminary visit to the child in order to establish good rapport. This arrangement was possible only in 20 percent of the interviews, and 80 percent of the children were seen only once. If the child and the interviewer met only once, they spent time together before the actual interview for example by playing and talking informally.

The interviews were recorded and later transcribed. The interviews lasted on an average 55 minutes. The shortest interview was only 20 minutes long, and the longest ones lasted over an hour and a half. Interviews were arranged according to parents preference in children's homes (47%), or in day-care (51%). Two percent of the interviews were made in other places, such as at the university.

Data were also gathered from the children's parents. The parents' questionnaire contained various questions about the child and the family.

Results

Children's fears according to the open-ended questions

The children reported on an average 5.6 fears per an interview and only five children out of 222 said, that they were afraid of nothing. The fears children expressed in the open-ended questions were classified into nineteen categories (*Table 1*).

Categorizing children's fears was not a simple task to do. Very often it was difficult to determine what was the actual object of child's fear, for instance then, when a child told that she was afraid of monsters when being alone in the dark and hearing the wind blowing behind the bedroom window. Fear is rather undifferentiated or obscure emotion in nature and it is sometimes rather difficult for both children and adults to specify what it really is that frightens them in certain situations.

Table 1: Self-reported fears of 5-6-year old Finnish children.

	Is afraid of (%)		
Fear	*none*	*a little*	*some extent/a lot*
Nightmares	17	16	67
Television	23	18	59
Familiar animals	49	12	39
Unfamiliar animals	51	5	44
Imaginary creatures	71	5	24
Darkness/dark places	76	7	17
Minor injuries	85	3	12
Strange people	86	3	11
Behaviour of peers	86	4	10
Being alone/getting lost	87	2	11
Accidents and death	91	1	8
Behaviour of significant adults	92	2	6
Losing a loved one	93	1	6
Thunderstorms etc.	93	2	5
War, attacks, guns etc.	95	0	5
Traffic accidents	95	1	4
New things or situations	95	3	2
Medical fears	97	1	2
Other	97	1	2
N=222			

Many children started the interview by simply denying that anything fearful had ever happened to them. However, when the interviewers patiently waited and encouraged the children to talk, most children started to tell openly about their fears. The most common fears mentioned by the children were nightmares, television, unfamiliar and familiar animals, and imaginary creatures.

Eighty-three percent of the children had seen frightened *nightmares*. Children were surprisingly capable of describing in detail their fears. The content of these nightmares will be analysed thoroughly later.

Fears aroused by *television* seem to be very common in early childhood. Children mentioned both frightening adult programs (like James Bond movies, Alarm 911) and frightening children's programs (like cartoons). In all, 28 different adult or youth programs were mentioned by name. Some children were able to mention the programs only in general, like "a program, where people shoot each other" or "programs, where bad guys kill children". Many children were frightened by some aspect of programs showing killing and shooting either in the real world (e.g. news about wars) or in the fictitious world. The interviews show, that 5-6-year-old children already watch quite a lot of this kind of programs. The children reported, that there were frightening aspects in the children's programs, too. Although, fears related to children's programs were far more uncommon than fears related to fiction and drama, which are originally directed to adults.

Through television for instance the war in Croatia or famine in developing countries become part of the children's everyday experiences. It was not uncommon that children were afraid that things like that could also happen in their own lives. The six-year-old girl

in the following example told the interviewer that she was afraid that her family could meet with famine like starving people in the tv-news.

> *Interviewer: Are there frightening things in the television? Child: Well ... not very much ... except, that if they show in the news ... those starving people. I'm always afraid that, it can also happen to us ... my family. That would be so awful. (girl, six years.)*

It is clearly seen in children's reports of their television-related fears that they found adults' programs or those of youth's much more frightening but, on the other hand, also much more interesting than actual children's programs. Children were often fascinated by frightening programs and they could enjoy the excitement and fear aroused by them:

> *Interviewer: Is there frightening things in the television? Child: Psycho ... it was terrible ... and it was awfully long ... Interviewer: What did you do, when you got scared of it? Child: (With enthusiasm in his voice) Nothing. I just watched it more and more and more ... (boy, five years.)*

The boundary between enjoyable feelings of excitement and unpleasant feelings of fear was often obscure, and often children could not control it themselves. Sometimes children started watching an exciting film with great enthusiasm, but gradually these enjoyable feelings of excitement turned into uncontrollable feelings of fear.

However, it must be remembered that television can have various functions, also positive, in children's and families' lives (being together, sharing experiences etc.). Therefore, we cannot draw such a conclusion that television is bad for children because it arouses so many fears.

As in many earlier studies, it was found out also in this study that fears of animals are very common among young children. In the interviews children mentioned many frightening animals. The term *familiar animals* refers to such frightening animals like snakes, strange dogs and cats, bees, spiders and other insects etc. These animals are part of children's everyday experiences, and children often had a real, frightening experience concerning these animals (a strange dog had tried to bite them or they had seen a snake crawling on the ground). Fifty-one percent of the children named at least one frightening familiar animal. Distant (lions, tigers, etc.) or imaginary animals (electric snakes etc.) are called *unfamiliar animals*. Forty-nine percent of the children were afraid of these. The fears of this kind are one example of children's powerful imagination, through which they process their experiences.

Monsters, ghosts, vampires and other *imaginary creatures* were mentioned as frightening by 29 percent of the children. Especially frightening things seen in television often turned into frightening illusions in children's imagination:

> *Child: There was, in the TV ... a werewolf ... there were a girl and a man, and every time they went to a cellar they turned into werewolfs ... and then I started to think that there was a werewolf in mom's and dad's closet ... and I was so scared ... I looked to the other direction, I did not want to look there at all. (girl, six years.)*

Children's fear of imaginary creatures was most frequent in the night-time or at the times, when they were alone. In the night-time for instance the wind blowing in the trees at the yard made a child to think that there were ghosts coming to hurt him/her. Twenty-four percent of the children mentioned also darkness or dark places as frightening. Many chil-

dren told that darkness is frightening especially then, when they are alone, for instance going to bed at night.

The children reported many fears that are related to their environment. The fear of familiar animals was the most common fear of this kind. Others were fear of *minor injuries* (e.g. falling and hurting oneself), *accidents* (e.g. fires, getting killed), *traffic accidents* and *thunderstorms* etc. These were also typical fears (see *Table 1*). Fears of minor injuries were often associated with fear of pain, children were afraid of hurting oneself in games or cutting one's finger with a knife. But the fears of great accidents or dangers can be seen to reflect children's awareness of death or danger of death. However, only five children mentioned, that they thought in general that death or dying was frightening. These children told that they had thought what it is like to die or what happens after one's death.

Children mentioned also fears that relate to other people in their environment. Most commonly they were afraid of strange people and especially people, who had behaved somehow in threatening or abnormal way, e.g. drunk people or handicapped. Many children also told that they were afraid of burglars, rapists or other bad or criminal people.

Fears that related to child's significant others (e.g. in their families) were expressed less often. Fourteen percent of the children mentioned fears that concern problems with peers, they were for instance afraid of fights with other children at the day-care or with siblings at home. Other children might also deliberately try to frighten them by, for example, telling ghost stories or forcing them into frightening games. Fears that related to children's relations to close adults were not very common according to their answers to the open-ended questions. Eight percent of the children told that they were afraid of parents' violent behaviour, quarrels between the parents or getting punished by the parents etc.

Children's fears in the projective test

The ranking list of fear-provoking situations (*Table 2*) constructed on the basis of the children's answers to the projective test changes to some extent the picture of fears derived from open-ended questions.

Going alone to the bed in the dark was the most frightening situation for children in the projective test. Eighty-eight percent of the children reported that the child in the picture is afraid of to some extent or a lot. Majority of the children were also afraid of situations that illustrated separation from other people. Children found teasing by an other child least frightening from all these eight situations.

Table 2. Children's fears in the projective test.

	Is afraid of (%)		
Fear	*none*	*a little*	*some extent/a lot*
Going to bed in the dark	*4*	*8*	*88*
Getting lost in the forest	*5*	*9*	*86*
Getting lost surrounded by strange people	*9*	*22*	*69*
Going to the doctor	*12*	*25*	*63*
Parental criticism	*13*	*25*	*62*
Staying alone without parents	*18*	*23*	*59*
Conflicts between the parents	*32*	*30*	*38*
Teasing by an other child	*36*	*30*	*34*
N=222			

In the open-ended questions children rarely mentioned fears related to separation or close human relations, but according to children's answers to the projective test they are very common fears among children of this age. It is obvious that many fears represented in the projective test are such fears which children can find hard to recognize and verbalize and also to express to a strange adult. It must also be remembered that children can try to conceal their fears, especially fears that relate to their family and other close interpersonal relationships. In the open-ended questions only 8 percent of the children mentioned that they were afraid of significant adults' behaviour, but in the projective test 62 percent of the children were afraid of (some extent/a lot) parental criticism and 38 percent was afraid of conflicts between the parents.

So, *Table 1* and *Table 2* show that the open-ended questions, on the one hand, and the projective test on the other offer different pictures of children's fears. However, in our point of view, it is not very fruitful to try to answer the question, which technique tells the "truth" about children's fears. These methods give *different*, but complementary information about children's experiences.

Children brought up many fears in the interviews. So, the methods used – open-ended questions and the projective test – turned out to be good ways of receiving information about children's inner worlds. Fear seems to be part of children's everyday experiences, so it is not an exceptional or abnormal phenomenon in their lives. *It can be concluded that fears of 5-6-year-old children are often very concrete in nature and on the other hand, they have a lot of imaginary content. Also fears related to close family relationships and separation* are common fears of young children. It is worth noting that children did not name fears concerning the future or other more abstract fears, which are according to previous studies more common among older, school-aged children and the youth (e.g. Ollendick et al. 1989).

Gender differences of fears

Table 3 shows that boys and girls reported very similar fears. The only differences were that girls reported more fears of nightmares and minor injuries than boys.

There were no gender differences concerning the amount of fears reported in the interviews and there were neither no gender differences in children's fears according to the projective test.

Children's coping strategies of fears

So, the analysis of children's reports of their fears showed, that fear is a part of children's everyday life. But children also could tell a lot of ways of how to cope with these fearful situations. These coping strategies were categorized to following sub-categories (*Table 4*).

Table 3. Gender differences in children's fears.

	Is afraid of (%)			
Fear	*none*	*a little*	*some extent/a lot*	*p<*
Nightmares				
Girls	*13*	*11*	*76*	
Boys	*20*	*21*	*59*	*0.01*
Minor injuries				
Girls	*82*	*6*	*13*	
Boys	*89*	*0*	*12*	*0.05*

Table 4. The coping strategies of fears used by 5-6-year-old children. How many children (%) mentioned at least once given coping strategy.

	The open-ended questions (%)	*The projective test (%)*
Primary control		
Attempts to constructively control the situation or other people	32	92
Attempts to aggressively control the situation or other people	11	41
Fantasy	7	11
Secondary control		
Attempts to avoid or escape from the fearful situation	69	76
Social support from adults	54	47
Doing something else	28	50
Cognitive activities (active)	15	24
Cognitive activities (avoiding/denial)	16	11
Emotion expression	6	65
Security object	5	4
Social support from peers	7	29
Reality testing	7	4
Do nothing/does not know	29	59
N=222		

We have analysed children's coping strategies of fears on two dimensions. The one is *cognitive vs. behavioural* ways of coping and the other is *primary vs. secondary* control coping. The aim of secondary control coping strategies is to influence the feelings of fear engendered by a fearful event. By contrast, primary control coping refers to behaviour involving efforts to modify or influence the fearful events, circumstances, objects or other people. First we present children's behavioural and cognitive secondary control coping strategies.

5-6-year-old children use a lot of *behavioural, and very concrete coping strategies.* Children for instance told the interviewer that they would hide behind the sofa, when they were afraid of a television program or that they would start playing when they were afraid of somebody breaking into the house. Cognitive ways of coping were much more uncommon in children's answers. This can be seen to reflect the restricted cognitive capacities of children of this age.

Escaping or avoiding activities seem to be typical ways of dealing with frightening experiences among preschool-aged children. Children told that they went to an other room when they were afraid of parents' quarrels or tried to think something else when being afraid of bad dreams at night. About 70 percent of the children reported both in the open-ended questions and in the projective test that they used coping strategies like this.

Children mentioned few *cognitive* coping strategies. Furthermore, many children's cognitive coping strategies were avoiding and rather passive. Children, for instance, tried to think something else when feeling afraid of something or tried to forget the fear-provoking event. It is important to note, however, that children also brought up more sophisticated or

advanced cognitive ways of coping with their fears. Some children mentioned, that when they watched a frightening television program, they tried to think that the program is not true, and it could not actually happen in the real life. Children also told that the monsters or ghosts go away, when you think really hard that they are not real.

One very important way for children to cope with their fears was *support from other people*. Often the mere presence of a close adult was enough for children to attain their feelings of security. So, children told for instance that they would run to their mother or father when they got frightened of something or that they would ask the mother to watch the frightening television program together with them. Furthermore, children also talked about their fears with other people. Approximately half of the children both in the open-ended questions and in the projective test mentioned such coping strategies. So, the role of the attachment relationships is of great importance in regulating children's felt security.

Children also turned to other children like siblings or friends when feeling afraid of something. One child for instance told that she preferred watching frightening movies in the television with a friend, so that she would not feel so scared. Getting support from peers was nevertheless more rare than getting support from close adults (7%/29%).

Other less frequently mentioned secondary control coping strategies were emotion expressions (mainly crying) and using security object, for instance sleeping with a teddy bear, because it helps the bad dreams to stay away.

These coping strategies that I have presented so far can be called secondary control ways of coping. However, children also used a lot of primary control coping strategies. Attempts to *constructively control* the situation or other people refer to coping strategies where children actively and constructively try to make the situation less frightening or threatening. Children for instance might tell the parents not to fight any more or blow out a candle, when they were afraid of fire. At least one coping strategy like this was brought up by 32 percent of the children during the open-ended questions and 92 percent of the children in the projective test. Children also used *aggressive behaviour to control* the fear-provoking situations. Children told that they would hit back the child who is teasing them or, if they were afraid of spiders, they would try to kill it. Eleven percent of the children in the open-ended questions and 41 percent of the children in the projective test mentioned such strategies.

Fantasy is an important source of fears in children's lives. On the other hand, fantasy is also a way for children to cope with their fears. Preschool-aged children's fantasy is a rich and powerful factor in their lives and it gives them ways to handle and manage problematic or distressing experiences. Seven percent of the children according to the open-ended questions and 11 percent according to the projective test described such coping strategies. Most of the fantasies children used to handle with their fears can be described being a kind of omnipotent fantasies, through which children could control the object of their fear. This is an extract of conversation with one five-year-old boy, which serves to illustrate this:

> *(The child is telling about his frightening bad dream) ... then a nasty monster took me to a cave and then I always wake up. Or, always when the bad dream ends, I always keep my other eye open ... so that if the monster comes to my room, I can jump from the bed and hit it to the face. But if a really big monster comes to the room, I take the rifle and shoot it! (boy, five years)*

Some children had experiences of such frightening situations where they did not know what to do in order to feel better or they could not tell how to make the fear to go away. Twenty-nine percent of the children in the open-ended questions and 56 percent of the children in the projective test did not mention any coping strategy at least once.

Table 5. Significant gender differences in children's coping strategies of different fears.

Coping strategy (fear)	*Girls (%)*	*Boys (%)*	*p<*
Social support from adults			
fear of separation	5	1	.05
fear of minor injuries	5	1	.05
fear of bad dreams	52	31	.001
fear of darkness	6	1	.05
fear of television	9	3	.05
fear of unfamiliar animals	5	1	.05
fear of behaviour of peers	6	1	.05
fear of going to the doctor (projective test)	7	2	.05
Escaping and avoiding behaviour			
fear of darkness	3	10	.05
Active cognitive activities			
fear of unfamiliar animals	7	1	.05
Emotion expression			
fear of staying alone without parents (projective test)	15	6	.05
Constructive control			
fear of darkness	7	2	.05
Doing something else			
fear of bad dreams	6	14	.05
	N=111	*N=111*	

The sex-differences in children's coping strategies

There were some differences in coping strategies used by boys and girls (*Table 5*). The main gender difference is that girls were more likely than boys to prefer the use of parents and other close adults and peers. Boys, on the other hand, used more often than girls escaping and avoiding activities. Furthermore, boys mentioned more often than girls in connection with the fears of bad dreams and television related fears that they did nothing or that they did not know what to do when feeling afraid.

Differences in boys' and girls' coping strategies also show, that girls use to some extent more active and constructive modes of coping than boys. Girls, for instance, mentioned cognitive coping strategies more often than boys. These findings support the results of many other previous examinations of children's coping. It has also been established in many studies that girls prefer emotional behaviors or emotion expression. This study supports these findings, because girls used more often emotion expression in one projective test's situation (staying alone without parents).

The situation specificity of coping with fears

In order to define the situation specificity of children's coping strategies we examined systematically the connections between coping strategies and the contents of fear. This analysis shows that children's coping strategies vary to a great extent as a function of specific situational demands, in other words, children used different kinds of coping strategies in connection with different fears (*Table 6*).

Table 6. The connections between coping strategies and contents of fear. (How many children (%) use given coping strategy in these fears.)

Coping strategy	Familiar animals	Imaginary creatures	Bad dreams	TV	Unfamiliar animals
Constructive control	13	5	1	15	1
Social support from adults	13	25	45	7	7
Aggressive control	12	0	0.4	0	2
Social support from peers	1	0	2	2	1
Security object	0	0	0.4	1	1
Avoiding and escaping behaviour	47	30	7	44	46
Doing something else	0	8	10	15	6
Emotion expression	1	0	2	0	0
Cognitive activities (active)	3	5	5	2	7
Cognitive activities (avoiding)	5	6	7	3	9
Fantasy	2	5	1	1	9
Does nothing/does not know	2	6	16	8	9
N=222					

The use of primary and secondary modes of coping depended upon the situational context. The fearful situations associated with greatest proportion of primary control coping strategies were fears of animals (35%) and fears of injuries and accidents (31%). Respectively, the proportion of secondary control coping was highest in television related fears.

Given coping strategy can also serve different kinds of functions in different situations. For example, crying may often be simply a way to express one's emotions (secondary control coping) but it can also be a way to control the fear-provoking situation or people (primary control coping). These two episodes illustrate this statement:

> *... well, when I woke up, and remembered the bad dream ... I pulled the blanket over my head and cried a little bit, and then I started to feel better and fell asleep. (girl, 5 years) (secondary control)*

> *Interviewer: What is the boy in the picture doing, when feeling afraid of parents' quarrel? Child: He cries ... because then they stop yelling, when he starts to cry. (boy, 5 years) (primary control)*

It is also important to note that also the amount of children using social support varied in different fear-provoking situations. In context of night-time fears the proportion of social support was 43 percent of all coping strategies used by children. By contrast, for example in television-related fears children very rarely sought support from close adults or peers, because the proportion of this coping strategy was only seven percent in tv-fears. In other words, children seldom discussed with adults about frightening aspects of tv-programs or asked someone to watch these programs with them.

Children's difficult experiences connected with fears and coping with fears

Thus far, we have presented the self-reported fears and coping strategies of the children. Now we turn to the question: are children's fears and coping strategies connected with difficult experiences in their close relationships?

In the parents' questionnaire we asked if the child had had difficult experiences concerning his/her close adult relations. The experiences asked were as follows: 1. losing a loved one, 2. death of a loved one, 3. serious illness of a loved one, 4. divorce of the parents, 5. excessive use of alcohol by a loved one, 6. violence by a loved one and 7. conflicts between parents (1=no experience, 2=experience).

These experiences were factor analysed and the main dimensions of the difficult experiences were:

1. *Problems in family relations* (highest loadings were on losing a loved one, divorce of the parents, excessive use of alcohol by a loved one, violence by a loved one and conflicts between parents)
2. *Illness and death* (highest loadings were on death of a loved one and serious illness of a loved one).

Two cumulative indexes were formed based on this factor structure. We examined the influence of these on children's self-reported fears (analysis of variance).

Children's fears and problems in the family.

Problems in family relations showed a significant effect on the fears of significant adults, animals, separation and conflicts between the parents (picture test). Children, who had experienced a lot of difficulties in their families were more afraid of significant adults' behaviour (e.g. violent behaviour or punishments) than children who had had few or none

Table 7. Significant connections of problems in family relations and illness and death with children's fears.

	n	*x*	*s*	*F*	*p<*
PROBLEMS IN FAMILY RELATIONS					
Fear of behaviour of significant adults					
none/few experiences	154	.11	.51		
a lot of experiences	44	.32	.88	3.99	.01
Fear of familiar animals					
none/few experiences	154	1.20	1.28		
a lot of experiences	44	.66	.94	6.88	.001
Fear of separation					
none/few experiences	154	.10	.50		
a lot of experiences	44	.27	.73	3.13	.05
Fear of conflicts between the parents (picture test)					
none/few experiences	152	1.09	1.05		
a lot of experiences	44	1.49	1.05	4.58	.01
ILLNESS AND DEATH					
Fear of minor injuries					
no experience	121	.24	.07		
experience	84	.45	.11	3.06	.05
Fear of getting lost surrounded by strange people (picture test)					
no experience	121	1.73	.97		
experience	84	2.07	.82	7.11	.001

difficult experiences. These children were also according to the projective test more afraid of conflicts between the parents. These findings show, that *difficult experiences in family-relations increase children's fears concerning these relations.* Difficult experiences in family-relations also increase children's fear of separation (e.g. death of a parent, losing a loved one). On the contrary, children with none or few difficult experiences were more afraid of animals than children with a lot of these experiences.

Illness and death showed a significant effect on fears of minor injuries and getting lost surrounded by strange people (picture test). Children who had experienced illness and death of close people were more afraid of both these than children with no such experiences. (See *Table 7*)

Children's coping strategies and problems in the family.

The connections between children's difficult experiences in close relationships and their coping strategies of different fears were also studied (cross-tabling, see *Table 8*).

Table 8. Significant connections of problems in family relations with children's coping strategies of different fears.

Coping strategy/fear	*none/few experiences*	*a lot of experiences*	*p<*
Constructive control			
fear of animals	*8*	*0*	*.05*
fear of television	*16*	*5*	*.05*
fear of conflicts between parents (picture test)	*38*	*57*	*.02*
Escaping or avoiding behaviour			
fear of animals	*24*	*9*	*.02*
fear of bad dreams	*24*	*9*	*.02*
fear of television	*39*	*25*	*.05*
fear of unfamiliar animals	*19*	*9*	*.05*
Social support from peers			
fear of animals	*1*	*9*	*.01*
Emotion expression			
fear of bad dreams	*1*	*9*	*.01*
fear of conflicts between parents (picture test)	*4*	*11*	*.05*
fear of getting lost in the forest (picture test)	*37*	*55*	*.05*
fear of staying alone without parents (picture test)	*8*	*18*	*.01*
Fantasy			
fear of unfamiliar animals	*2*	*7*	*.10*
Doing something else			
fear of staying alone without parents (picture test)	*18*	*7*	*.05*
Does nothing/does not know			
fear of television	*11*	*2*	*.05*
fear of going to bed alone in the dark (picture test)	*13*	*30*	*.01*
fear of parental criticism (picture test)	*13*	*21*	*.05*
fear of going to doctor (picture test)	*46*	*27*	*.01*

It was found, that problems in family relations were significantly connected with use of constructive control in three different fearful situations. Children who had experienced few or none difficulties in family-relations used more often constructive control in fears of animals and television programs. On the contrary children with a lot of these experiences used more frequently constructive control in the fear of conflicts between the parents (picture test).

Children's use of avoiding and escaping coping strategies was also connected with children's difficult experiences in relationships within their families. Children who had experienced few/none difficulties in their families used more often avoiding or escaping coping strategies in following fearful situations: fears of animals, bad dreams, television programs, and imaginary animals. So, children who had experienced a lot of problems in their families used less frequently avoiding or escaping coping strategies.

Children with a lot of difficult experiences also used more often emotion expression (e.g. crying) in many situations. Significant connections are found in four situations: fears of bad dreams, conflicts between the parents (picture test), getting lost in the forest (picture test) and staying alone without parents (picture test). Furthermore, they dealt more often with fearful situations with help of fantasy than children with few/none difficult experiences. Children who had had a lot of difficult experiences used more often fantasy as a coping strategy in fear of unfamiliar animals. They were also more likely to prefer support from peers when being afraid of animals.

The amount of children who did not know what to do in the fearful situation in order to feel better was also significantly connected with children's difficult experiences. In the fears of television programs and medical fears (picture test) children with none/few experiences told more often that they did not know how to cope with the fear. However, in the fears of going to sleep alone in the dark (picture test) and parental criticism (picture test) the opposite was true: it was more often the case that children with a lot of these experiences could not tell any coping strategy that would help them to feel better in these situations.

Table 9. Significant connections of illness and death in the family with children's coping strategies of different fears.

Coping strategy/fear	*No*	*Experience*	*p<*
Constructive control			
fear of television	*18*	*6*	*.01*
Doing something else			
fear of parental criticism (picture test)	*13*	*23*	*.05*
fear of going to bed alone in the dark (picture test)	*9*	*2*	*.01*
Escaping and avoiding behaviour			
fear of staying alone without parents (picture test)	*3*	*10*	*.05*
Emotion expression			
fear of parental criticism (picture test)	*18*	*29*	*.05*
fear of getting lost surrounded by strange people (picture test)	*4*	*12*	*.01*
fear of staying alone without parents (picture test)	*7*	*16*	*.01*

Illness and death in the family were also to some degree connected with children's coping strategies (*Table 9*). Children with no experiences of illness and death of close people used more often constructive control in fears of television. On the contrary, children who had experienced illness and death in their families used more often escaping and avoiding behaviour when being afraid of staying alone without parents (picture test). Illness and death were similarly connected with children's use of emotion expression as difficult experiences in family-relations, because children with experiences of illness and death also used more often emotion expression in three fear-provoking situations in projective picture test (conflicts between the parents, staying alone without parents and getting lost surrounded by strange people).

Conclusion

Difficult family experiences were connected with children's self-reported fears and coping strategies. Children with a lot of these difficult experiences had more fears concerning the close human relations. But what is very significant here, is the fact, that it cannot be concluded from these results that these difficult experiences would increase children's fearfulness as a whole. On the contrary, for example children with few/none difficult experiences were more afraid of animals. So, when we want to understand children's fears, we have to consider their life contexts as a whole. Difficult experiences in close human relations do not necessarily increase children's fearfulness or, in the other words, secure relations do not necessarily protect children from experiencing fears. The security of close relations is an important factor in the contexts of fears and children's fears may be different depending upon the experiences in close relations.

Children with a lot of difficult experiences in close human relations had more fears related to close relationships, but they also sometimes had more effective coping strategies especially for fears concerning social relationships. For example, children who had experienced a lot of problems in their families used less frequently avoiding or escaping coping strategies and they used more frequently constructive control in the fear of conflicts between the parents (picture test). So, it cannot be argued from these results that difficult experiences in close human relations would necessarily increase children's insecurity or helplessness. The connections between these factors are much more complex and they need further examination.

It can be concluded from the analysis of children's reports of their coping strategies that we have to study children's coping so that we appreciate the complexity of the whole coping process. Person and situational factors both shape children's specific coping modes. Coping must always be considered in relation to the emotion or situation which one is coping with. Coping is very much a situation-specific process. For example the difficult experiences we have now examined were sometimes connected with a given coping strategy in one fear provoking situation but not necessarily in the other.

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FAMILY AND PERSONALITY FACTORS FOR SLEEPING DIFFICULTIES IN A NORTHERN FINNISH COHORT OF FIRST AND SECOND BORN CHILDREN

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INTRODUCTION

Sleep disturbances fall into two major categories: difficulties in going to sleep, and difficulty in maintaining sleep. Most sleep disorders occur with the greatest frequency in childhood. From birth through latency, isolated incidents of sleep disorders are universal. It is highly probable that all children have episodes of such sleep disorders as a reluctance to go to sleep, sleepwalking and sleep talking, waking up from a night mare, or episodes of pavor nocturnus. The fact that such problems are so common especially in the pre-school years does not mean that they have no psychological meaning but rather that within normal limits, they can be understood as signs of developmental anxieties which are part and parcel of growing up (e.g. Kessler 1966; Kales et al. 1975; Arajärvi 1984; Espie 1991, pp. 39-55).

Transitional and situational sleeping difficulties may occur in response to a variety of emotional and physical stresses. Starting school, for example, may be one of the great life changes evoking situational anxiety, and in some children also sleeping disturbances.

Normal and pathological sleeping difficulties are not always easy to tell apart. The best diagnostic criteria are severity and persistence of the disturbances over a period of time: the degrees rather than kind. The point in studying children's sleep disorders is to take into account developmental, situational and long lasting environmental factors. The crucial questions are whether sleep disorders are only one of a number of difficulties which the child is suffering from, and whether there are any environmental factors forming the basis for these difficulties.

As a part of a prospective longitudinal research project "The Oulu Mother-Child Study" (Wasz-Höckert and Seitamo; Seitamo and Wasz-Höckert 1983) sleep disturbances of first and second born children were investigated just before the children had to start school or just had started school. The significance of the following factors for the development of sleep disturbances was studied in this presentation: 1) Phase I (predicting factors), factors assessed 3-5 days after delivery – a mother's personality, her emotional attitudes to her newborn baby, her images of her role as a mother, the state of her marriage; 2) Phase II, about seven years later – in addition to the above mentioned factors, life changes, the role of the father, personality and child rearing attitudes of the parents, behavioural traits and difficulties of the child.

SUBJECTS AND METHODS

All primaparas and all secundiparas who were admitted to the University Central Hospital in Oulu in 1971 and 1972 and who delivered a healthy baby were studied 3-5 days after delivery: 309 primiparas (mean age 22.2 years) and 182 secundiparas (25.5 years). The

mothers coming from rural area comprise a total sample. A follow-up study of these mothers and their respective children was carried out in 1978-1979. 228 (73.7 %) of the primiparas and 126 (69.2 %) of the secundiparas answered a questionnaire and 120 of them and their respective children were investigated personally. The mean age of the children was 7 years 5 months.

The personality of the mother was investigated by EPI-C (Eysenck). The other factors were measured by using questionnaires filled in by the mothers (5-7 point rating scales). Several sum-scales were constructed on the basis of factor analyses (Seitamo 1987, Parttimaa and Salmu 1985). Sleeping difficulties were measured by 13 questions, and a sum-scale was constructed by summing up these ratings. Intercorrelations were calculated by Pearson's r-coefficient.

Results

The results in *Table 1* indicate that those sleep disorders which are basically conscious and intentional, such as reluctance to go to sleep and coming beside parents, are the most common sleeping difficulties, while those more deviant symptoms, such as jactatio capitis nocturna, are very rare. About half of the children suffered from nightmares or talked at least seldom/sometimes during sleep. The difference on the sum-scales of sleep disorders between the first and second born children was not significant.

Table 2 shows that sleep disorders (sum-scale) are in correlations with other behavioural traits and disturbances, such as anxiety and fears, egoism, and a poor readiness to solve problems in difficult situations leading to exasperating behaviour, aggressive teasing and acting out behaviour. At the phase of starting school or shortly after this phase fear of going to school, poor cognitive, practical and social readiness for school were also in correlation with sleep disorders. These interrelationships emerged more clearly in the second born children than in the first born.

Table 1. Percentages of sleep disorders in a Northern Finnish cohort of first and second born children at the age of seven years (N=354).

Sleep disorder	*No*	*Seldom*	*Sometimes*	*Fairly often*	*Often*
Problems in going to sleep	32.7	21.1	31.5	11.9	2.8
Coming beside mother	35.5	21.0	25.9	8.6	9.0
Coming beside father	49.3	17.8	23.2	5.7	4.0
Awakenings	43.7	24.2	23.3	6.9	1.9
Difficulties in falling asleep	50.3	24.2	20.8	4.3	0.3
Nightmares	51.4	27.2	18.6	1.5	1.2
Sleeptalking	51.5	23.5	19.1	4.6	1.2
Wants to drink	54.5	17.8	19.3	5.3	3.1
Wants to have the lights on	62.3	11.8	10.5	7.7	7.7
Restless sleep	64.9	17.3	13.4	2.9	1.6
Crying during sleep	71.4	17.9	9.1	0.9	0.6
Sleepwalking	88.0	5.4	6.3	0.0	0.3
Jactatio capitis	97.7	1.3	0.6	0.0	0.3

Table 2. Correlations of sleep disorders (sum-scale) in a Northern Finnish cohort of first and second born children with cognitive and socioemotional factors in first and second born children at the age of seven.

Factor studied	*I-born N=228*	*II-born N=126*	*I+II N=354*
School			
Fear of going to school	*14* [b]	*26* [c]	*18* [d]
Cognitive readiness for school	*-16* [b]	*-27* [c]	*-19* [d]
Social readiness for school	*-18* [c]	*-19* [b]	*-19* [d]
Fears			
Fear of being rejected by parents [F]	*09*	*25* [c]	*14* [b]
Fear of imaginary figures [F]	*11* [a]	*21* [b]	*14* [b]
Anxiety [F]	*08*	*25* [c]	*13* [b]
Egoism, aggressivity			
Egoistic [F]	*15* [b]	*17* [a]	*17* [c]
Exasperating behaviour [F]	*14* [b]	*27* [c]	*19* [d]
Aggressive teasing [F]	*10*	*16* [a]	*11* [b]
Acting out behaviour [F]	*-06*	*30* [d]	*05*

[a] *p<0.10* [b] *<0.05* [c] *p<0.01* [d] *p<0.001* [F] *factor-score*

Decimal points omitted.

The results in *Tables 3* and *Table 4* indicate that several factors of the life situation of the family, personalities and upbringing of the parents were in correlation with the sleep disorders in the children. These correlations were again clearer in the second born children than in the first born. This was also true of the predictive factors, which tended to correlate significantly only in the second born children.

Conclusion and discussion

No exact comparisons with the various studies on sleep disturbances can be made because of the varying criteria used for their definitions. Taking these limitations into account, we can observe that the frequencies of sleep disorders in this study were in many respects close to the results found in the studies of the corresponding age-groups, but interesting differences could also be found (e.g. Jonsson and Kälvesten 1964, Klackenberg 1971, Forsius 1973, Korkiakangas 1981, Rimpelä et al. 1983, Langinvainio 1984). The results of Langinvainio's study (1984) of 125 children from Helsinki attending their first school class in 1976 are fairly well comparable with our results. More children in Helsinki (46.7 %) than in Northern Finland (35.1 %) suffered from restless sleep, but no differences emerged regarding waking up at night (54.5-56.3 %) and nightmares (49.5-49.6 %). Two interesting differences could be observed: a higher percentage of children in Helsinki talked during sleep (72.8 %) than did children in Northern Finland (49.5 %), but the direction was the reverse in crying out during sleep (10.6-28.6 %). As regards the latter results, differences in the formulation of the questions may have had an effects. In the Helsinki study the item "cry seizures", instead of the item "crying during sleep" in the Oulu study, may have directed the attention of the parents to more intensive crying. If not, we can raise the question whether talking and crying are alternatives in these cultures: sleeptalking in a more crowded and

Table 3. Correlations of children's sleep disorders (sum-scale) in a Northern Finnish cohort of first and second born children with the predicting factors and with life situation at the age of seven years.

Factor studied	I-born N=228	II-born N=126	I+II N=354
Factors shortly after child birth			
Neuroticism of mother (EPI-C)	*07*	*21* [b]	*12* [b]
Adequacy in mothering [F]	*-08*	*-15* [a]	*02*
Breastfeeding troublesome (retrospective rating)	*06*	*29* [d]	*12* [b]
Life changes during past 7 years			
Changes of residence	*15* [b]	-	-
Changes in marriage			
- love decreased [F]	*11* [a]	*20* [b]	*14* [c]
- quarrels increased [F]	*01*	*25* [c]	*07*
Life situation at present			
Work monotonous [F]	*10*	*30* [d]	*17* [d]
Not content with work division at home [F]	*09*	*29* [d]	*14* [c]
Sense of collaboration with husband poor [F]	*06*	*26* [c]	*12*
Life easier for husband	*09*	*16* [a]	*11* [b]

[a] $p>0.10$ [b] $p<0.05$ [c] $p<0.01$ [d] $p<0.001$ [F] *factor-score*

Decimal points omitted.

Table 4. Correlation of children's sleep disorders (sum-scale) in a Northern Finnish cohort of first and second born children at the age of seven years with parents' personality and child rearing attitudes.

Factor studied	I born N=228	II born N=126	I+II N=354
Personality of parents			
mother: neurotic (EPI-C)	*07*	*24* [c]	*12*
sociable (EPI-C)	*10*	*-26* [c]	*01*
jealous (F)	*12* [a]	*35* [d]	*20* [d]
tough (F)	*06*	*27* [c]	*13* [b]
father: sociable (F)	*-05*	*-19* [b]	*-08*
communicative (F)	*-08*	*-20* [b]	*-11* [b]
Upbringing			
mother: feelings of insufficiency (F)	*04*	*35* [d]	*15* [c]
feeling "child difficult to raise"	*11* [a]	*20* [b]	*14* [c]
tense about child's going to school	*06*	*25* [c]	*19* [d]
father: punishing (F)	*10*	*29* [c]	*16* [c]
difficult to talk about sex with child	*18* [c]	*15* [a]	*16* [c]

[a] $p<0.10$ [b] $p<0.05$ [c] $p<0.01$ [d] $p<0.001$ *F factor-score*

Decimal points omitted.

overstimulating environment where verbal expressions and communications during the daytime, too, are more lively, and crying in a culture where it is not true to the same degree. The questions on sleeptalking were well comparable in these two studies. Hence the difference may point in the same directions as that regarding restless sleep. These two results on somewhat higher frequencies of sleep disturbances in Helsinki than in Northern Finland are not surprising taking into account the more restless environment of a big city and the possible impact of school. In a study of Skolt and Northern Finnish children (Forsius 1973) sleeping disturbances were less frequent than in this study but the serial included the entire school-age group and the criteria used were different. The frequency of sleepwalking (12 %) was close to Klackenberg's results in 1971 (every tenth 7-year-old-child).

The correlations between the sleep disorders (sum-scale) and behavioural characteristics indicate that sleep disorders of our 7-year-old children were not only signs of developmental and situational anxieties but also of greater behavioural disturbances. Situational intensification of sleeping difficulties might have occurred in response to anxiety over starting school, and over difficulties which were anticipated because of poor cognitive, practical and social readiness for school. Anxiety and fear of becoming rejected were the significant basis for sleep disorders in the second born children, but in the first born these correlations were not significant, although they were in the same direction. During the personal investigations the significance of birth order could clearly be observed: the parents of the first born children were very concerned about their children but at the same time they also were very insecure in estimating their children's characteristics, explaining that "it was so difficult to know because they did not have older children for comparisons". The parents of the second born children were less concerned, and it could be observed that these children were more likely to be "overlooked".

Fear of imaginary figures was also slightly connected with sleep disorders. The young child's inability to distinguish between fantasies, dream content and reality, and his active fantasy life still seem to have influence on the sleep of some children in this age group, most possibly on evoking nightmares. In our earlier studies we have found that inadequacy in mothering shortly after child birth was predictive of fear of imaginary figures in children at the age of seven (Seitamo 1987). Such interaction of early influences in the child's environment and of delayed maturation very possibly form the basis for this aspect of sleep disorders.

Egoism and poor readiness for solving problems in difficult situations, taking the form of exasperating behaviour, aggressive teasing and acting out behaviour were also linked up with sleep disorders, and again more clearly in the second born children; acting out behaviour only in the second born children. These results lend support to the hypothesis and findings on the very complicated instrumental processes which play a role in children's sleeping difficulties (Kessler 1966, Kales 1975, Arajärvi 1984).

The state of the marriage, especially relationships between the spouses, personality of the parents and child rearing attitudes and practices seem to constitute a network of factors which form the basis for the children's disturbances as well as for their sleep disorders. Negative changes experienced in love between the spouses during their joint life, lack of democracy and imbalance in work division between the spouses at home, an a mother's dissatisfaction with her work are evidently reflected in her personal well-being and furthermore in her attitudes toward her child. Personalities of the parents were of significance: a mother's neuroticism and jealousy and authoritarian attitudes, and father's difficulties in communication. A picture of ambivalence and inadequacy, tension about her child's life change because of starting school, and punishing, authoritarian attitudes were all a back-

ground or the children's sleep disorders, as were also a father's punishing, authoritarian attitudes and communication difficulties with the child.

A mother's insecurity in bringing up her child may lead to indulgence of the child's reluctance to go to sleep; bedtime rituals may develop into real battles and often the child may emerge the winner, as in many other daytime situations. As a result a parent may feel that the child is "difficult to raise".

In the second born children neuroticism of the mother, and her inadequacy and negative feelings in mothering her newborn baby were to some extent predictive of the development of sleep disorders in her child. These results point in the direction that not all sleep disorders of the 7-year-old children can be understood as developmental or situational anxieties – although probably a lot of them are – but that behind these disorders there may also lie from the very beginning factors which are long lasting and which will direct the development toward personality disorders.

The results of our study support the major theories of the development of personality disorders, although very few prospective empirical studies have been concerned with the development of sleep disturbances.

From the preventive point of view, it is clear that attention should be paid to the entire life situation of the families, beginning with a democratic division of work at home and with offering support and guidance once the marriage is in the course of loosing emotional sufficiency. Special attention should be paid to the factors of upbringing and to those evoking fear of school in order to prevent their potential long lasting disturbing effects on child development.

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BEGINNINGS OF JOINT ROLE PLAY IN THE DAY CARE CENTRE

An activity-theoretical viewpoint

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INTRODUCTION

According to Vygotsky, play is of crucial importance in the development of the child: it is the leading activity of preschool age. Play gives rise to imagination and leads to the development of will, abstract thought and moral consciousness. When playing the child masters skills and achievements that he or she does not master outside the play context. In play the child must, for instance, relate his or her wishes and needs to the roles and rules of play. "Play continually creates demands on the child to act against immediate impulse, i.e. to act on the line of greatest resistance. (...) At every step the child is faced with a conflict between the rule of the game and what he would do if he could suddenly act spontaneously. In the game he acts counter to what he wants (...) in play a child is always above his[1] average age, above his daily behaviour." (Vygotsky 1976, pp. 548-552). This is why play creates the zone of proximal development for the child.

In the cultural historical theory of Vygotsky, social aspects of activity are of vital importance. Yet, in his theory of play, Vygotsky hardly deals with the notion. According to Vygotsky, genuine play begins in a form of (symbolic) role play. He does not distinguish between solitary and joint play. He mainly uses a singular form "child" and describes play as an activity of an individual child. Play begins when play objects and play actions become the pivots for severing the meanings of objects and actions from real objects and actions. Meanings and ideas begin to guide the activity of the child. How children start to play together, how they develop shared understanding and how they support each other in play – in fact, how joint role play creates the zone of proximal development for individual children and for the group – remains outside Vygotsky's attention.

Young children under three years of age play most often with adults, alone or parallel with other children. During the third year of life they begin to play more and more together. What does this transition look like? What kind of changes are to be seen in the transition? These questions are answered from an observation study[2] which is part of a larger project aimed at developing not only the educational practice but also the research methodology and theory of play (e.g. Hännikäinen 1989, 1992, 1994).

The observation data, 28 play sessions each about one hour, were collected over four months while observing the play of a group of children in a day care centre. The group consisted of twelve children between one and three years, three educators and one assistant. Because the day care centre was open for eleven hours, the educators worked in shifts. All of them were together for about four or five hours daily. In the morning, at play time, one of them was absent. For the play time the group was usually divided into two rooms, with

[1] Here the problem of earlier translations is revealed; sometimes the child is "he", sometimes "she".
[2] By means of non-participant observation.

one educator in each. The assistant could change places whenever necessary. The data – observation notes and videotapes – were analysed both quantitatively and qualitatively. The description of play presented here is based on the qualitative analysis.

PLAY AS AN ACTIVITY SYSTEM

According to Vygotsky (1976), the main characteristics of play are imaginary situation, rules, and the liberation from situational constraints - combined with a role. These characteristics of play can be seen as structural elements of play as an activity system. Vygotsky emphasizes that in order to understand human activity, it must be examined in its social and cultural context (see e.g. Vygotsky 1978, 1994). When play is analysed in terms of an activity system, this challenge is accepted.

According to the cultural historical approach human activity consists of three main structural elements: subject, tools (instruments) and object. On a deeper level, rules (norms), community and division of labour (tasks) are also elements of activity (Engeström 1987, 1993). These elements together, and their internal relations, constitute the general structure of activity.

Hakkarainen (1990) has developed structural models of two activity systems, object manipulation (play with objects) and role play, based on the general structure of activity. In object manipulation, the subject of activity is usually a child - adult dyad. Gestures, mime and play material are the tools of play. An adult playing with the child can also be considered as a tool. The main object of play is the examination of things in order to become familiar with them. Generalized actions and development of symbol function are seen as outcomes of the activity.

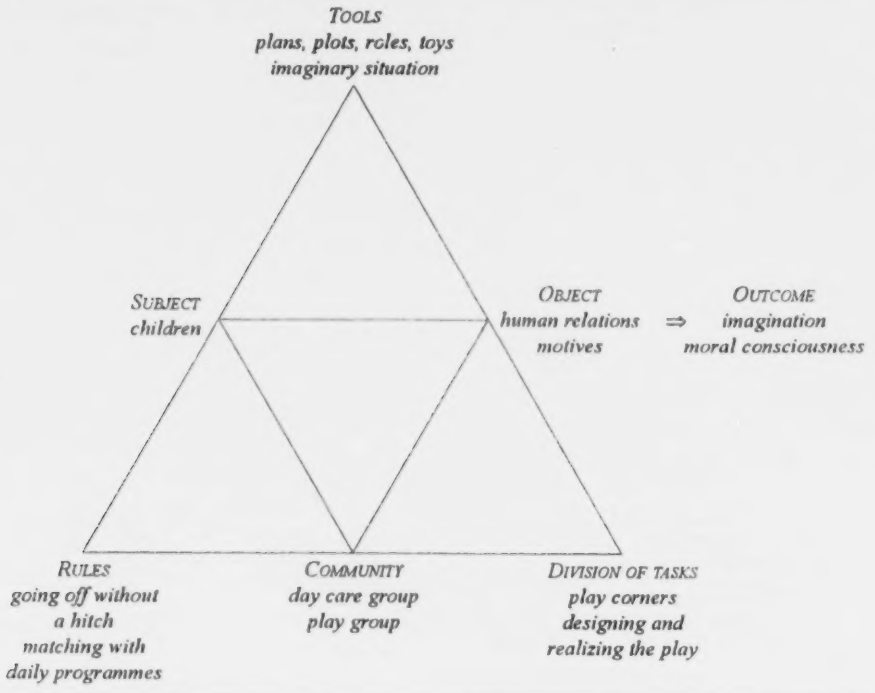
When role play[3] begins, the structure of play changes. Now the subject of the activity is several children together. The main tools of play are plans, plots, roles and imaginary situation; rules connected with the content of play are embedded in the imaginary situation (cf. Vygotsky). The object of play is motives and human relations. The outcomes of play are development of imagination and moral consciousness. Now rules, community and division of tasks are also included in the structure of play. The structure of the (plot-based) role play can be presented as it is shown in *Figure 1*.

In addition to role relations, real relationships between children are also manifest in role play. Real relationships are displayed outside the play, yet connected with play. This takes place, for instance, before the play begins when children negotiate about the game, between episodes when children reorganize the game or during play, embedded in role behaviour. Real relationships may concern formation of play group, choice of theme and making an agreement of roles, play material and rules (Elkonin 1980; Zaporozhets and Markova 1983a,b).

Activity on the levels of role relationships and real relationships requires intersubjectivity and shared understanding between the players. Here, the third year of life is an important period, since at that age children begin to play more and more together, communicate meanings to each other and understand the content of interaction in the same way (Howes 1987). In play, young children often communicate meanings nonverbally by joint functional experiences like running, giggling and laughing together (Budwig, Strage and Bamberg 1986). However, creating shared understanding does not take place without misunderstandings, quarrels and interpersonal conflicts. Usually young children are not able to

[3] Because of the day care context, role play is here specified as joint role play.

Figure 1. Structure of the role play (Hakkarainen 1990, 138)



resolve their conflicts by themselves, but need help from their educator (Kolominskii and Zhiznevskii 1992).

KATJU ON HER WAY TO JOINT PLAY

What is young children's play in a day care centre like when analysed in a conceptual frame of the activity system? What is the role of the peers? What is the role of the educator? The following portrait is drawn through a typical game of young children, going to the grocer's (for more on typical play themes, see Elkonin 1980; Zaporozhets and Markova 1983b). The youngest girl in the play group, Katju, is here the focus of observation.

Going to the grocer's

The situation before playing grocer's shop can be described in the following way: Iida (3;3), Anni (2;6), Mari (2;4) and Katju (1;11) have played the same game the day before. Now they are allowed to continue. The game takes place in the bedroom of the group, and has been arranged by the educator RITVA. In the room there is equipment needed for the game, such as empty food packages, dolls, shopping-bags and role clothing. The shop is a bench on the floor. In addition, there is in the room a wardrobe with two doors often used as "home" by children. Everything is ready and waiting for the children to come and play after breakfast.

> *The children are standing in front of the bench and they look at the equipment. RITVA tells the children that there are shopping items. She also encour-*

ages the children to nominate them. Katju is very silent. RITVA *gives a doll lying in the carry-cot to her. She takes the doll out of the carry-cot and gives is to* RITVA. RITVA *takes it and simultanously passes shopping bags to the girls, also to Katju. Anni goes and peeps into the wardrobe. Katju looks around and seems to be uncertain about what to do.*

RITVA: What does Katju take from this shop?

Katju does not answer but walks bag in hand to the wardrobe door and looks at the other girls. They are getting dressed in role clothes (e.g. old women's dresses and scarves). RITVA *is helping them. Katju would also like to have some.*

RITVA: Something for Katju, too. Would you, Katju, like to have the hat over there?

Mari picks up the same hat.

RITVA: Should we give the hat to Katju?

Mari does not want to give it.

RITVA: I wonder where the other hat is. Here it is, here is a hat for you, Katju.

RITVA takes a hat from the floor and places it on Katju's head.

RITVA: Here we are, now you go shopping, to buy food, don't you?

Katju does not answer but goes to the bench with the bag in her hand. Anni and Mari go to the wardrobe, Mari goes in. Iida is standing by.

RITVA: What does Katju buy? What do you buy?

Katju seems to hesitate and looks around at the other girls.

RITVA: Would you like to buy raisins?

RITVA offers a package of raisins to Katju.

RITVA: Would you like to buy cookies? Go and take some cookies. Put them in your bag.

Katju goes and takes a package of cookies from the bench and brings it to RITVA.

RITVA: Should I help a little bit?

She puts the package of cookies into Katju's bag. At the same time Mari comes and takes more packages. Then she goes back into the wardrobe.

RITVA: Is there something else you would like to buy? Or is the bag already full?

Katju walks to the wardrobe where Mari has just gone. She tries to get in. Mari does not want her and closes the doors.

Mari: You can't come in.

RITVA comes to the wardrobe. She opens the doors.

RITVA: Perhaps Katju could also have room here?

Mari: No.

RITVA: But there is room for Katju, too.

Katju does not say anything, she looks around and listens to the discussion. Anni slips into the wardrobe. Iida remains by the bench.

RITVA: Shall we try, perhaps there is room. Katju has shopping with her.

Mari does not protest anymore. RITVA *organizes a place for Katju who sits down close by the others. Mari and Anni leave the wardrobe to put on more*

clothes. Ritva helps them. Anni begins to play with a teddy bear. Mari and Iida take packages with them and go back into the wardrobe. Soon the girls leave the wardrobe and come to RITVA.

RITVA: Where is your shopping-bag?

Katju does not answer, sits down beside Ritva and gives a book to RITVA. *Anni comes to Katju and gives a scarf and a doll to her.* RITVA *gives the book back to Katju, who already has another book in her hand. Iida also tries to see the books in Katju's hands. Mari runs back to the wardrobe.*

RITVA: May Katju bring this book home and read it? You and Anni could read it together.

Katju walks to the wardrobe, but Anni and Iida remain by the bench.

Mari: There is no room here.

Katju: (to RITVA) There is no room here.

RITVA: Mari, there is room for Katju, too. Just open the other door, and there is even more room.

Mari opens the door, Katju goes in. Iida also comes and slips in. Iida and Mari sit close to each other, Katju beside them with a book on her lap. She looks at Iida and Mari who are trying to open a tin. Katju closes the door, Iida asks her to close the other door, too.

Katju: Let's close the door, let's close the door!

Katju opens and closes the doors, repeating the sentence several times. Now the doors are open.

Mari: One door open, and the other door open.

Iida: And then I go shopping for coffee and such things, and salted meat. Bye, bye.

Iida goes to take more packages from the bench, Mari goes with her. Katju remains in the wardrobe, she looks at the other girls, smiles and looks happy. Mari comes back.

Mari: Should we lock the doors?

Katju: We'll lock the doors.

Katju and Mari are giggling and laughing in the wardrobe.
Iida is shopping for eggs. RITVA *suggests Iida that she could bring yoghurt and bananas as presents for the girls waiting at home. Iida runs happily back to Mari and Katju.*

Iida: Hi, girls, I brought you some presents. Eggs, five marks.

Iida empties the bag in the wardrobe. Katju sits still with the books on her lap, she follows the other girls, laughs and looks satisfied. Anni is not involved in the game, she is with her toys beside RITVA.
Mari leaves the wardrobe again. Iida intends to leave, too.

Iida: Bye, bye.

Katju: Bye, bye.

Iida does not leave but goes into the wardrobe.

RITVA: (to Mari) You could go and make some hot cereal and serve it to Katju.

While Mari is buying Iida and Katju create their own idea transforming the wardrobe into a bus. The earlier home is now redefined to be a bus.

Iida: (to Katju) We are driving on a bus.

Katju: Shut the door!

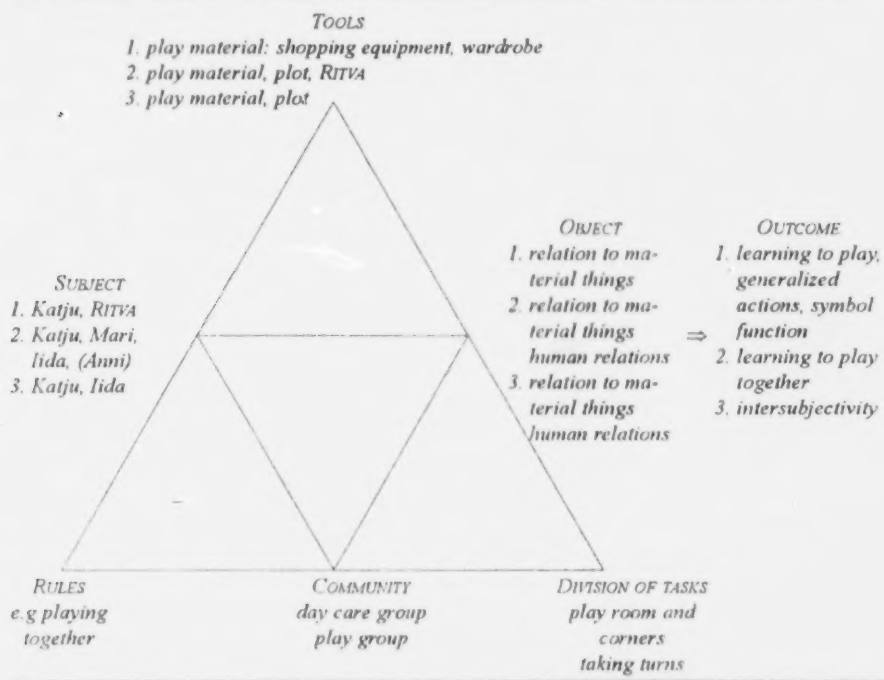
Katju closes the doors.

The subject of play are on one hand the children – first individual children, then Katju, Mari and Anni, later Katju, Mari and Iida, and finally Iida and Katju. On the other hand, at the beginning of the game, the subject is Katju and Ritva together.

The shopping equipment and the wardrobe are the main tools for the game. The plot – if we can at all speak of one – is simple: The girls go with shopping-bags in their hands to the shop (empty food and cleanser packages on a bench). They load packages into the bags and bring them home (a wardrobe). They stay for a while at home, inside the wardrobe, and go to take new packages. This is done several times. Iida tries to maintain an idea of family: she is playing a role which might be that of the mother. The roles are mainly parallel: the girls are a kind of shoppers. They act in an imaginary situation as far as empty packages and play actions substitute real, full packages and real actions and the wardrobe depicts first a home and then a bus.

The main object of this game is the relation to material things. The task of the educator is to organize and initiate the game, to resolve conflicts and maintain the game, for instance, by tutoring the game by asking questions like "what do you like to buy?" or "would you like to buy raisins?" Further, while tutoring the game like this, the educator acts as a tool.

Figure 2. Going to the grocer's



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A lot of actions of the educator focus on an individual child, especially on Katju. The educator tries to create the role of a shopper by equipping Katju with proper garments, a doll, a carrycot and a bag. There is no verbal communication from the child, but the adult is proposing and partly carrying out separate actions which construct the shopper's role. Katju is carrying out proposed actions with some misinterpretations. In this case the subject of the game could be child – adult dyad, or it might even be the educator herself whereas the object might be – Katju. Concerning Katju, the outcome of play would be learning to play. Sometimes the nominating of packages becomes the object of play. In this case the development of symbol function becomes an outcome of game. However, when the children are playing together "at home" or "in the bus", development of shared understanding and intersubjectivity can also be seen as an outcome, and the object might be human relations.

The older girls in the group were able to offer a more developed model of the shopper's role compared to Katju's hesitant actions. The connection between the shop and home was comprehended by them, especially by Iida. Iida offered a peer model of role behavior which called for verbal reactions in Katju, too.

Some interpersonal conflicts also occur in the episode. Mari has reserved the wardrobe for herself and wants to exclude Katju from her own space, but the adult is trying to include the wardrobe in the joint game by suggesting that the goods should be brought into the wardrobe which would be "home". Mari accepts the situation and the conflict is resolved.

However, the educator does not only solve conflict but she also tries to make the children do things together. She suggests, for instance, that the books could be taken home and read together. In this case the girls do not react. Yet, the educator continues to keep the game going and enrich the plot as well as the children's role behavior by suggesting the making of hot cereal and buying of presents. She succeeds especially with Iida, but the girls also manage to create joint play without her help by shared functional experiences, such as giggling and closing the wardrobe doors (cf. Budwig et al. 1986).

The community contains all children of the group and their educators. Division of tasks has taken place, for instance, by dividing the children to play in several rooms in smaller groups. Further, the children play in turn and the educators work in shifts. The general rules presume, for instance, that the children are not allowed to disturb each other and, although implicit, everybody ought to be included in the game.

In terms of activity system, the course of the play session "going to the grocer's" and the changes in its main structural elements can be represented as it is shown in *Figure 2.*

Pedagogical conclusions

Systematic observation of play is necessary in order to facilitate children's play in general, and in particular when the children begin to build joint role play. The educator must be sensitive to recognize the objects and motives of every individual child and the entire group. What are the child or children doing, and why? What is the sense of the ongoing activity for the children? Understanding the children's perspective helps the educator to assist playing so that the specificity of play as a creative and independent activity of the children is not destroyed.

Plot-based role play is an activity where the children themselves create the game and its motive. However, the educator cannot stand aside in this process. As an institution supported by society, the day care centres are based on an idea of goal-directed education. Play is the leading activity for young children. Thus, the educator must estimate his or her goals in relation to the motives and objects of the children's game. The educator can directly aim at a development change by setting demands and limitations for the children or try to evoke

in children motives that change the children's activity towards the aims (see Hakkarainen 1990). For instance, in the play session described above, the educator did not set many demands or limitations for the children. Instead of that she tried again and again to encourage them to find and maintain the motive to play. Yet, by doing so, she sometimes seemed to fail in taking the children's perspective.

When examining role play from the point of its general object – human relations – and general outcome – especially the development of moral consciousness – one task of the educator is to help children in creating real relationships that are friendly and polite. At the same time the educator ought to assist the children in creating role relationships that depict valuable human relations (cf. Elkonin 1980). This was what the educator probably tried to do while organizing and intervening in the game.

Hakkarainen (1989, 1990) highlights that development of play in the day care centre cannot be understood without outlining the connection between the activities of the educators and of the children. There are inner tensions and contradictions in children's play, but also in educators' work, as well as between them. Only a minor part of the contradictions are interpersonal conflicts. Contradictions arise, concerning educators, for instance, from shift work, division of labour and daily programs, but also from their attitudes and expectations related to educational work. Concerning children, there are inner contradictions related to all structural elements of play, and, for instance, related to individual developmental stages of the children. Unfortunately, mainly because of the method of non-participant observation, these contradictions could not be more closely examined in this study.

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Part 3

Hungarian research and practice in relation of prematured and gifted children

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PREMATURELY BORN CHILDREN AT SCHOOL

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Several Hungarian studies aiming to reveal the factors contributing to scholastic failures found that prematurely born children were overrepresented among those who failed in school readiness exams (Harmath, Szabó, Eckhard, and Rohály, 1976; Lukácsné, 1978; Szabó, 1980). Results from the majority of the follow-up studies of preterm children in which the subjects have reached school age, both in Hungary and abroad, seem to be in line with this: several authors have noted that a considerable percentage of children who were born preterm are prone to encounter difficulties at school, even though they score in the normal range on IQ tests (Broman, 1984; Cohen, Parmelee, Beckwith, and Sigman, 1992; Csiky, Rajk, Simon, and Dorner, 1981; Drillien, Thomson, and Burgoyne, 1980; Grigoroiu-Serbánescu, 1984; Hunt, Cooper, and Tooley, 1988; Hunt, Tooley, and Harvin, 1982; Mohay, O'Callaghan, Burns, and Tudehope, 1988; Ross, Lipper, and Auld, 1991; Siegel, 1985a, 1985b; Vohr and Garcia Coll, 1985). However, the literature is not entirely consistent in this respect. Baker, Mednick, and Hunt (1987), Stewart (1983), and Taub, Goldstein, and Caputo (1977) did not find the scholastic performances of preterm children as groups impaired.

In spite of the accumulation of correlational data pertaining to the background of learning disorders, the availability of sound research evidence that could be used to attempt the prediction of scholastic difficulties for an individual child is still limited. Satz and his collaborators succeeded to a remarkable degree in identifying those children who were likely to develop reading problems with the use of a test battery at the age of 5 years (Satz, Taylor, Friel and Fletcher, 1978). Siegel (1985a) has confirmed the efficacy of the Satz battery (especially two of its components: the Beery Visual-Motor Integration and the Recognition Discrimination) in the prediction of difficulties in not only reading but spelling and arithmetic as well. In a Hungarian study the unevenness of performances on the different subscales of the same visual-motor test (the Bender Gestalt or the Frostig) as well as the discrepant achievements on different visual-motor tasks proved to be fairly good predictors of learning disabilities (Porkolábné Balogh, 1988).

Clearly, preterm children do not constitute a homogeneous population with respect to perinatal status. Perinatal biological variations among children with no definite neurological impairment, however, account for the long-term outcome only to a modest degree. In contrast, social-environmental factors play a crucial role (Barsky and Siegel, 1993; Cohen, 1986; Kalmár, 1996). Siegel (1985a) has developed a risk index, involving a set of demographic, social, and perinatal variables. Siegel's multifactor index has been relatively successful in predicting subsequent learning problems. It has, however, produced a rather high proportion of false positives (Barsky and Siegel, 1993; Siegel , 1985a).

One of the objectives of our long-term follow-up study of preterm children has been to monitor how these children cope with the demands of school. We identified those children who had problems, and, using the data base accumulated since the perinatal period, tried to tap the underlying factors: on the one hand, the structure of mental abilities; on the other hand, the potential biological and environmental risks or protective factors (findings of the

earlier phases of the follow-up study were reported in details in Kalmár and Estefán Varga, 1988).

METHOD

Subjects

Initially 30 low- to moderate-risk preterm children participated in the study. None of them had any physical, neurological or sensory abnormalities. The data of two children who became mildly mentally retarded and were placed in special schools were not included in the school-outcome analysis. Another two children had dropped out before the last wave of data collection as their families moved away from the area. The main characteristics of the sample were the following: Gestational Age mean 34 weeks, range 31-35.6 weeks; Birth Weight mean 1916 grams, range 1000-2400 grams. The male-female proportion was 50-50%.

At the Grade 4 follow-up a full-term, non-risk control pair was selected for each member of the preterm sample from among the classmates, matched on SES and sex.

Table 1. Measures

Data collection waves	*Background: Biological/Environmental*	*Performance*
1. Perinatal	• *Birth Weight* • *Gestational Age* • *Medical Risk Index*	
2. 6 years	• *SES* • *Intellectual Fostering at Home* • *Parental Attitudes (based on parent interviews)*	• *Budapest-Binet IQ* • *Goodenough's "Draw-a-Person"* • *Bender Gestalt*
3. End of the first school-year (age 7-8½)		• *Scholastic achievement* • *Teacher rating on attention, memory, speed of work, social adaptation*
4. End of grade 4 (age 10-11½)	• *Elementary HOME inventory*	• *WISC* • *Bender Gestalt* • *Brickenkamp attention test* • *Shool marks* • *Teacher rating on attention* • *Child Behaviour Checklist*

Measures and design

The Grade 4 school marks and teacher ratings were available also of the full-term comparison group.

RESULTS

Grade 1

Twenty-eight children who had IQ-s in the normal range at age 6 subsequently entered normal grade school. As in Hungary at the end of the first school year the children's school achievements are not evaluated by numeric or other normative marks, the teachers were asked to assess the children as to whether or not they fulfilled the basic requirements of grade 1 in each of the major domains of scholastic performance. The incidences of disorders reported by the teachers were so high that it had to be considered an alarming sign (*Table 2*).

Table 2. Percentage of preterm children whose performances were rated as unsatisfactory by the teachers at the end of the first school-year.

Reading	*42 %*	*Attention*	*42 %*
Writing	*25 %*	*Visual memory*	*42 %*
Maths	*25 %*	*Verbal memory*	*17 %*
		Speed of work	*63 %*
		Social adaptation	*36 %*

At that stage we had no comparison group, nor were reliable data available on the occurrence of such learning and behaviour problems in the general population of the respective age, therefore we asked each teacher to estimate the percentage of children in her class who had displayed similar difficulties. As compared to the incidence rate among our preterm group, all of the teachers gave much lower figures for the occurrence of such problems in the general population. These findings seemed to be in line with the literature claiming that preterm children, in spite of normal intelligence, are at heightened risk for school problems.

In order to detect which background factors and test scores were related to the school measures, as a first step Analyses of Variance were performed. Although, as we have seen, premature birth in itself appeared to increase the risk for scholastic difficulties, the perinatal biological variations within our relatively low risk preterm group failed to explain the diversity of the children's academic progress and behaviour. In contrast, half of the ANOVAs computed with environmental variables produced significant F values (*Table 3*).

As for the prediction of school outcome from tests administered on school entry, the results of the ANOVAs were promising. According to the subsequently performed Stepwise Discriminant Function Analyses, each school outcome variable could be predicted by a single test score at 70-80% reliability, and the accuracy of prediction could be further increased by the inclusion of other test results (*Table 3*).

The most effective single predictor was the Goodenough "Draw-a-Person" Quotient, followed by the Bender-Gestalt "Direction" subscore.

Grade 4

Between 10 and 11½ years of age all of the remaining 26 children completed the first phase of general school, i.e. passed the 4th grade. The Grade 4 final results of the preterm children and the full-term comparison group did not differ significantly, which suggests that by the age of 10-11 years the preterm children have essentially overcome the difficulties that many of them encountered in the first school year. The only variable on which significant difference was found between the two groups is the teachers' ratings of attention.

Table 3. Significant predictors of scholastic performances at grade 1

	Predictor variables										
	Biological			Environmental			Test scores at 6 years				
School measures	BW	GA	PMR	SES	IF	PA	BIQ	GDrQ	BGAn	BGDir	BGRp
Overall school success				•	•		•	+	+	⊙	•
Reading				•	+		+	⊙		+	
Writing							+	+		+	⊕
Maths				+	+	+	⊙				
Attention				+			+	⊕		+	
Visual memory							•	+	•	⊙	•
Verbal memory					+	+	+	+	+	+	⊕
Speed of work				+	+		+	⊙		+	
Social adaptation					+	+	+	⊙		•	+

Key: BW Birth Weight; GA Gestational Age; PMR Perinatal Medical Risk Index; SES Socio-Economic Status; IF Intellectual Fostering; PA Parental Attitude; BIQ Budapest-Binet IQ; GDrQ Goodenough's "Draw-a-Person" Quotient; BG Bender Gestalt Test; An Angles; Dir Directions; Rp Relative Positions — by Santucci and Galifret-Granjon's scoring system

\+ F value $p<0.05$; • F value $p<0.001$; + or • The best predictor test score; ⊕ or ⊙ The strongest environmental correlate

Next, on the basis of the Grade 4 final results the preterm sample was divided into two subgroups. As none of the children failed at this stage, a medium value of the individual means of the marks obtained in the major subject-matters was used as a cutpoint. Eighteen children whose marks averaged above medium comprised the subgroup of good achievers. The subgroup of poor achievers consisted of 8 children.

The good achievers had higher quality home backgrounds (significant differences were found for the total scores of the HOME inventory and for two subscale scores; the difference in SES reached only marginal significance). The good achievers had also more favourable perinatal status in that their Gestational Ages were significantly higher (this was somewhat surprising after the lack of any significant contribution by the biological variables to the first school year outcome).

A Stepwise Discriminant Function Analysis computed including the biological and environmental variables resulted in 88% correct classifications of the good and poor achievers. Two background variables proved to be significant discriminants: one of the subscales of the HOME inventory, namely, the "Family participation in developmentally stimulating experiences" was the strongest contributor, followed by Gestational Age.

The results of the Stepwise Multiple Regression Analyses performed with the Grade 4 final marks obtained in each of the major school subject matters as dependent variables were consistent with the above. Sets of 2-4 background variables accounted for half to two third of the variances of each school mark, and all of these sets included both the "Family participation" HOME subscale and Gestational Age (*Table 4*).

Table 4. Background variables accounting for grade 4 school marks

Subject matter	Background variable	Multiple R^2
Maths	HOME 1 HOME 5 GA HOME 6	0.66
Hungarian (including reading and spelling)	HOME 1 HOME 6 GA	0.59
Environment	HOME 6 GA	0.55

Key: GA Gestational Age
HOME 1 Emotional and Verbal Responsivity
HOME 5 Provision for Active Stimulation
HOME 6 Family Participation

The subgroup of good achievers outperformed the poor achievers on all of the tests administered in the end of the Grade 4 school-year. A Discriminant Function Analysis produced perfect (100% correct) classification with three significant variables: the WISC Verbal Quotient, the Attention test score, and the Bender Gestalt "Direction" subscore (note that the same Bender subscore proved to be a powerful predictor of scholastic performances also in grade 1). Each of the major subject-matter marks significantly correlated with most of the test scores, nearly equally strongly with the WISC Verbal IQ and the Attention score (*Table 5*).

The strength of the Verbal Scale always surpassed that of the full-scale IQ, and the PQ lagged far behind. In the Stepwise Multiple Regression equations, after inclusion of the Verbal IQ, none of the other test variables remained significant, thus the accuracy of prediction based on the Verbal IQ alone could not be improved.

Table 5. Significant correlates of scholastic performances at grade 4

	Maths	Hungarian	Environment
WISC IQ	+	•	•
WISC VQ	•	•	•
WISC PQ		•	
BG An		+	
BG Dir		•	+
BG Rp			
Att S	•	•	•
Att R	⊙	⊙	⊙
CBCL		+	+

WISC IQ Full-scale IQ
VQ Verbal Quotient
PQ Performance Quotient
BG Bender Gestalt Test
An Angles
Dir Directions
Rp Relative Positions
by Santucci and Galifret-Granjon's scoring system
Att S Brickenkamp Attention Test score
Att R Teacher rating on Attention
CBCL Child Behavior Checklist
\+ correlation coefficient $p<0.05$
• correlation coefficient $p<0.01$
⊙ the strongest correlation

DISCUSSION

To sum up the main findings of the study, initially our results appeared to support the claim frequently expressed in the literature about the increased risk in preterm children for learning disorders, in that a considerable percentage of our relatively low-risk preterms experienced some difficulties in coping with the school requirements in the first year.

In the long run, however, these problems did not prove to be genuine learning disabilities. By Grade 4 the preterm children have caught up, and performed at virtually the same level as their full-term counterparts, thus corroborating the type of findings which have represented the minority in the research reports (Baker et al., 1987; Stewart, 1983; Taub et al., 1977). The premature children may have needed more time to adjust to the new demands of school, or they may initially have had a developmental lag in some of the mental functions required by the academic activities. On the other hand, it should be noted that the two mildly retarded children who needed special education – whose performances were not included in the analysis of the school-age outcome – represented a proportion (20 %) exceeding the incidence rate of mental retardation in unselected populations.

Consistently with the literature, the quality of home contributed far more towards the long-term outcomes than any of the perinatal biological variables. Interestingly, while no impact of the perinatal status could be detected on the first school-year results, at Grade 4 Gestational Age appeared to have some effect. It is remarkable that Gestational Age was also included in the multifactor risk index successfully predicting arithmetic problems in preterm children in Siegel's (1985a) study. Birth Weight did not appear to have any long lasting influence, although the birth weight range in our preterm group was wider than in most of the studies, the majority of which are limited to following up very low (<1500 g) birthweight samples. Many bivariate statistics relating SES to academic performance measures were significant. In explaining outcome variations, however, the power of SES was clearly outweighed by some home-process variables, notably by certain subscales of the HOME inventory. It is by no means surprising; Caldwell and her collaborators were led into designing the HOME inventory (Caldwell and Bradley, 1979, 1985) by the growing awareness that the SES is not a sufficient indicator of the quality of the child's home learning environment (Deutsch, 1973; White, 1982). Studies using the inventory have yielded convincing evidence of the relationship between the aspects of the environment covered by the HOME scales and the child's intellectual and academic performances (for overviews see Bradley, 1989; Bradley, Caldwell, and Rock, 1988). The HOME scores were found to contribute significantly to the accuracy of the prediction of outcome in preterm children (Bradley, Caldwell, Rock, Cases, and Nelson, 1987; Bradley et al., 1993; Greenberg and Crnic, 1988; Ross, 1985; Siegel, 1985a). As Bradley et al. (1988) report data on a follow-up of non-risk children at the same age (10 years) as the age of our preterm subjects was at the Grade 4 measurement point, it gives a special opportunity for comparison. Our findings show a remarkable similarity to those of the American authors in that the same HOME subscales – first of all "Family Participation", and also "Active Involvement" and "Responsivity" – proved to be the strongest correlates of scholastic achievements in both studies.

The IQ and performance test results appeared to be rather useful predictors of academic success at both measurement points. However, there seemed to occur a shift with increasing age in the predictive power, from measures involving visual-motor integration skills (like the Goodenough "Draw-a-person" or the Bender Gestalt) towards measures of general intelligence, and in particular those of verbal abilities. We should note, however, also some indications of continuity in this respect. The progress in maths was best predicted by the general IQ already at Grade 1; on the other hand, the "Direction" subscores of the

Bender test added to the reliability of discriminating the good and poor achievers still as late as at Grade 4.

The teachers' observations suggest some hints as to the background of the difficulties the premature children experienced in acquiring academic skills in the first school year. In nearly half of the preterm group the 1st grade teachers rated the children's visual memory as deficient. It is reminiscent of Siegel's (1985b) findings obtained with the use of memory tests, except that in Siegel's study the memory deficit of the preterms manifested itself in verbal tasks as well. The speed of the school work was found unsatisfactory in an even greater percentage of the preterms. Zubrick, Macartney, and Stanley (1998) note that it is a handicap usually not taken into consideration. Risk children in the study of the above authors attained similar levels of performances to their controls in untimed tests, but the risk group needed more time to do so.

Attention was likely to be an important contributor all through, and the distractibility and limited attention span reported by the 1st grade teachers may have been underlying the under-achievement of many preterm children at that stage. The preterms still received lower ratings on attention from the teachers as compared to their full-term counterparts at Grade 4. Unfortunately, the literature reflects little interest in the role attention plays in the intellectual and school performances of children born at risk, although Douglas as early as in 1960 mentioned attention as typically problematic in school-age preterm children, and there seems to be a growing recognition of attention deficits as sensitive indicators of early central nervous system insults (Liden, Clingan, and Laurie, 1985; Tramontana, Hoper, and Selzer, 1988). The difficulty of measuring attention objectively as well as the scarcity of information on its normal development may account for this neglect in the research (Liden et al., 1985). Promising exceptions are the studies reported by Cohen, Parmelee, Sigman, and Beckwith (1988), Csiky et al. (1981), Field, Dempsey, and Shuman (1983), Ross et al..(1991), Siegel (1985b), and Sostek, Smith, Katz, and Grant (1987), all having yielded results that underscore the importance of including measures of attention in the assessment of the outcome of prematurity.

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QUANTITATIVE AND QUALITATIVE ASPECTS OF LANGUAGE DEVELOPMENT IN LOW BIRTHWEIGHT CHILDREN

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Although the outcome of premature birth has been in the focus of research interest for several decades, it is only quite recently that a few studies reporting data on the language development in preterm children have been published. It is probably explained by the investigators' preoccupation with the widely believed, but never unambiguously proven exclusive association between the perinatal risks and visual-motor integration disorders. The findings of the above mentioned few studies are not consistent, but direct comparisons are rarely feasible due to the diversity of both the risk status of the target samples and the measures of language development used in the studies. Jacob, Benedict, Roach, and Blackledge (1984), McAllister et al. (1985), Siegel (1982), Ungerer and Sigman (1983) did not find the language development of children born prematurely or at other perinatal risks delayed as compared to the performance of fullterm non-risk children or to test norms. In contrast, findings reported by other authors (Kalmár and Boronkai, 1991; Neligan, Kolvin, Scott, and Garside, 1976; Siegel, 1985a, 1985b; Wright, Thistlewaite, Elton, Wilkinson, and Forfar, 1983) suggested significant lags in low-birthweight preterm children's progress in certain language-related skills.

The data on language development presented in this paper are from a 5-year longitudinal study using a variety of measures, including developmental, intelligence, and special ability tests. The report focuses on the impact of perinatal risk conditions associated with low birth weight (prematurity, perinatal complications, intrauterine growth retardation) on language skills at various stages of development.

METHOD

Subjects

Altogether 249 children participated in the study. 127 children were born preterm, with birth weights appropriate for gestational age. 57 of the prematurely born infants were sick

Table 1. Subjects

Group	*N*	*Birth Weight (grams)*		*Gestational Age (weeks)*		*SES*
		mean	*range*	*mean*	*range*	*mean*
Preterm infants (AGA)						
Healthy preterms	*70*	*1617*	*850-2540*	*31.60*	*27-36*	*21.6*
Sick preterms	*57*	*1796*	*720-2600*	*32.90*	*26-37*	*19.5*
Full-term SGA infants	*24*	*1843*	*1200-2400*	*39.25*	*37-41*	*18.9*
Full-term healthy comparison group	*98*	*3570*	*3000-3900*	*39.90*	*39-40*	*19.4*

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Table 2. Measures

	Age
Language subscale of the Brunet-Lézine Developmental Test	*12/24 months*
WPPSI "Vocabulary" subtest	*5 years*
Emergence of the first world	*(age in weeks)*
Onset of fluent speech	*(age in weeks)*
Phonological Disorders	*1-5 years*

and needed intensive care, the remaining 70 preterms had non-problematic perinatal courses. 24 children were born at term, with birth weights small for gestational age, i.e., they were intra-uterine growth retarded. The follow-up data of this group were used to disentangle the effects of prematurity from those of low birth-weight. 98 healthy full-term infants served as a normal comparison group.

According to the WPPSI IQ at age 5 the intellectual outcomes for all of the subgroups were normal. The socio-economic status did not differ significantly for any of the groups.

Measures

As shown in Table 2, the language development was measured by the language subscale of the Brunnet-Lézine Developmental Test at 12 and 24 months, and by the WPPSI "Vocabulary" subtest at 5 years of age. In addition, the ages at which the first word emerged, and the onset of the fluent speech were used. Phonological disorders were also recorded. In the first two years the ages of the preterm infants were corrected for prematurity.

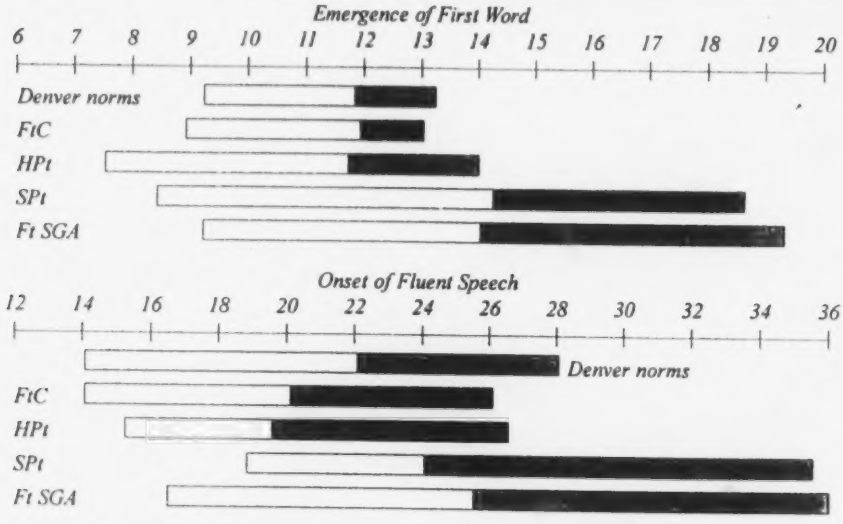
RESULTS

At 12 months both risk groups, that is, the preterms and the full-term small-for-gestational-age infants scored significantly below the comparison group on the Brunet-Lézine language subscale, with the sick preterms being the most delayed. Between 12 and 24 months the rate of language development had increased for all three risk groups, resulting in higher quo-

Table 3 Language performances (group means)

		Groups				*Significant comparisons*		
		a	*b*	*c*	*d*	*p<*		
Measure	*Age*	*Full-term comparison*	*Preterm Healthy*	*Preterm Sick*	*Full-term SGA*	*.001*	*.01*	*.05*
Brunet-Lézine Language Quotient	*12 mo*	*102*	*92*	*80*	*86*	*a/c a/d*	*a/b b/c*	
	24 mo	*102*	*101*	*89*	*91*	*a/c b/c*		*a/d*
WPPSI Vocabulary Score	*5 yrs*	*10.3*	*10.3*	*8.8*	*8.1*			*a/c a/d b/c b/d*
Phonological Disorders	*1-5 yrs*	*0.8*	*1.5*	*3.5*	*1.7*	*a/c b/c*		*c/d*

Figure 1 Emergence of First Word and Onset of Fluent Speech



FtC: Full-term Comparison Group
HPt: Healthy Preterm
Ft SGA: Full-term Small for Gestational Age
SPt: Sick Preterm

tients. However, as compared to the healthy full-term infants, only the healthy preterms had caught up completely. The sick preterms and the intrauterine retarded full-term infants still had significantly lower scores.

As compared to the normative data of the Denver developmental screening test, the onset of expressive speech, that is, the emergence of the first word in the full-term comparison group virtually overlaps the test norms. For the risk groups the much larger variances of the individual data were notable, particularly for the full-term small-for-gestational-age group. The majority of the low-birthweight infants uttered their first words in the normal age range, but 20-25 % were substantially delayed in this respect.

The ages of the first-word utterance raised the problem of the age-correction for prematurity, as using corrected ages, a considerable percentage of the preterm infants had extremely early data. The same distorting effect can not be detected in the onset of fluent speech, because it is normally due in much later ages, by which the effect of correction has been diminished. The full-term intrauterine retarded group is still characterised by an extreme range and large variation of the individual data.

The WPPSI "vocabulary" scores at age 5 (see Table 3) did not differentiate the healthy preterms form the comparison group. Both of these groups significantly outperformed the sick preterms and the full-term intrauterine retarded children. As far as the WPPSI VQ-PQ comparisons are concerned, it is only the intrauterine retarded group for which the VQ is substantially higher than the PQ.

Discussion

To sum up the results of the study, it is clear that the low-birthweight children by no means constituted a homogeneous group with respect to language development. At 12 months of age all of the subgroups were delayed as compared to the healthy full-term infants, but only

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the sick preterms had a mean score below the normal range. With this only exception, all the group means fell within the normal zones. This overall picture is consistent with the literature in that children exposed to perinatal risks usually perform at normal levels according to test norms, however, they may score significantly lower when compared to matched non-risk comparison groups. By 24 months the healthy preterms had caught up, and thereafter were indistinguishable from their full-term counterparts. The sick preterms and the intrauterine retarded full-term children still lagged behind at age 2 and the same was true for age 5.

Unfortunately, these findings do not easily lend themselves for interpretation. Multiple regression analyses were performed using biological and environmental data as independent variables. For the 12-month language quotient perinatal neurological abnormalities and the fathers' schooling were included in the regression equation as significant contributors. By 24 months of age only the neurological symptoms remained significant, and at age 5 none of the independent variables accounted for the verbal performances. Of course, there may well be a number of relevant background factors not covered by our study. Language acquisition is very likely to be influenced by factors like parent-infant interactions of stimulating experiences to a much greater extent than, for example, motor development (Kalmár and Boronkai, 1991; Siegel, 1985a). On the other hand, the parental child rearing attitudes and behaviours, in turn, are far from being independent from the perinatal events and the birth status and characteristics of the infant (Sameroff and Chandler, 1985). Future studies should aim to use a greater variety of more refined measures of language performances as well as of the children's home background, in order to throw light on contributing factors and mechanisms of language development in children exposed to perinatal risks.

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LEARNING TECHNIQUES AND SELF-KNOWLEDGE WITH TALENTED SCHOOLCHILDREN

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On the first and second conference of ECHA we reported that we had been working using a special talent developing program in Hungary since 1987 (Törökszentmiklós, Reformed Elementary School) with children of age 13-14 (Balogh, Nagy, 1990, 1991). On that conference we summarized our experiences of the program and the developing effect of it. Now we will not talk about this but we would like to mention the problems raised from that time and our endeavours at solving them.

In the course of our work first the everyday experience then the inquiries also proved that the development of talented pupils participating in our program was retarded by the lack of effective learning methods and by the lack of real self-knowledge. For this reason we collected a special program for direct development of these two important factors. In our lecture we will report on this program according to the following sections:

- aim of the program and the main content elements of it;
- presentation of the results of the examination and the analysis of them;
- conclusions useful for further talent developing work.

By way of introduction we would like to talk about the reasons why these two elements i.e. development of learning methods and self knowledge seemingly far from each-other could combine. The explanation is obvious: both of the two factors play a significant role in development of the talent of children as it was proven by several research before. And as these two factors got into the program at the same time, it made possible to investigate certain relations as well.

AIM OF THE PROGRAMS, PRINCIPAL CONTENT ELEMENTS

1. Program of development of learning methods

The aim of this program was to make learning methods and strategies of pupils effective. Two channels presented themselves for it: a direct and an indirect.

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The essence of direct development is making the children train such learning methods which are missing from their learning methods. In this case there is an opportunity to introduce the new methods into the learning activity and knowledge treatment (Schmeck, 1988; Twining, 1991).

The essence of indirect development is developing those intellectual capacities directly that make possible the shaping of more effective learning strategies. A problem emerging many times is that those intellectual capacities are missing from the pupils which are the conditions of the more intensive – profound – learning techniques (Gross, 1991; Lapp, 1995).

Both of the elements got a role in our program. For direct development we used a lot of deep methods.

- Definition of an unknown word. (On the basis of context analysis and context disintegration. Turning over the pages back to a chapter learned before. Using dictionaries, encyclopedias and reference books.)
- Paraphrasing: rephrasing some sentences and passages, telling them by own words.
- Transcripting and defining key concepts.
- Searching for relations between concepts and fixing them in memory. (Associative concepts groupable around an important concept. Relations of subordinations and superordinations. Connections of co-ordinations. Contrasted concepts. Relations of causes and effects.)
- Survey. (Preliminary survey: the title, subtitles, main paragraphs, short summaries of parts of chapters. Subsequent survey: survey of underlinings, comparison with sketches or with own notes.)
- Summing up in words or in writing.
- Studying and explanation of sketches, figures and diagrams etc.)
- Asking questions regarding the subject. (There must be understanding behind a good question!)
- Talking with classmates about the information learned.

In the course of indirect development we aimed at the following elements of intellectual capacities:

- Elements of function of attention. (Extent, durability, distribution, transference.)
- Mechanisms of understanding thinking. (Concept formation, revelation of connections, recognition of phenomena and ranging of them.)
- Mnemotechnic methods. (Coding mechanisms.)
- Components of problem solving thinking. (Understanding of exercises, phases of thinking and actions of thinking.)

Of course direct and indirect developments are not separated sharply in practice but the individual points of view get a dominant role in some exercises. A 30-hour program was worked out by us for the development.

2. Program of development of self-knowledge

The aims of this program were development of self-knowledge, self-image and social image. The following main points of view were enforced in the development and the inquiry.

- Self-evaluation appearing in different situations. (Situations of accomplishment, social situations, ethical standpoint.)

- Relation of self-image and social image of class-mates.
- Comparison of self-image and social image of the pedagogue.
- Alteration of inclination to empathy.

The program consisting of ten meetings took place in subsequent weeks. Each of the meetings was two hours long. On the first and on the last occasion questionnaires were filled in by the pupils regarding their own self-image and regarding what – according to them – some important persons (father, mother, teacher, class-mates) thought of them. Class-mates expressed their opinions about each other as well.

Briefly about the group processes. The organization and starting of the group took place in accordance with the group leading practice applied in Hungary: outlining the expectations, discussion of group rules and acceptance of group rules. The main elements of the group process were formed by the encounter games of Rogers and verbal games. A number of the first meetings concentrated on the introduction of the group as a whole. Parallel knowledge of the individuals and the group took place. Regarding that the children were at the beginning of adolescence, we paid special attention to bringing it to the surface and to discussion of opinions of boys and girls formed of each other. We did it also in a form of a game. The emotional peak of the whole group process was a game that is known by the name of "Hot Chair" in Hungary. The children set down alternately, one by one on the chair that was in the middle of the circle. Every class-mate went to the child sitting on the chair: "My opinion of you is the following ...". According to the opinions written by the children subsequently this game was the hardest but also the most exciting and meaningful for them.

PRESENTATION AND ANALYSIS OF RESULTS OF THE INQUIRY

1. Results of development of learning techniques

Altogether 78 pupils divided into four groups participated in the two developing programs. To test the effectiveness of the programs we performed measurements before the series of the group meetings and after as well.

We examined the elements of learning methods, which elements play a significant role directly or indirectly at processing and storing the knowledge. We have already outlined these elements and now let us see the results (*Table 1*).

Table 1.

	1st measurement (%)	*2nd measurement (%)*	*Difference (%)*
Understanding thinking			
• *Emphasizing the essence*	*51.6*	*60.9*	*9.3*
• *Concept classification*	*46.4*	*60.2*	*13.8*
• *Searching for main concept*	*55.9*	*63.9*	*8.0*
Mnemotechnics			
• *Remembrance of text*	*67.0*	*87.7*	*20.7*
• *Remembrance of form*	*70.7*	*83.5*	*12.8*
Functioning of attention	*67.7*	*84.8*	*17.1*

Conclusions

1. Pupils participating in the program are talented regarding their general intellectual capacities, they have high scores of IQ (we talk about it later in details), but it does not mean automatically that they have developed learning strategies. Results of the first measurement show this conclusion.
2. The developing program lasted 15 weeks and this period brought a significant development. It is proven by the differences of the two measurements.
3. Nevertheless, regarding the elements of the learning methods we can find significant differences in development.
   - The most intensive development was observable at remembrance of text. Not only the methods used in the program played a great part in it but surely also the fact that the pupils could exercise such methods in their everyday learning as well. Remembrance of form is more infrequent at schools.
   - It is shown by the results that methods of functioning of attention can be developed rapidly. This is an important fact since poor attention is a frequent obstacle in successful work and in talent development.
   - Elements ensuring the understanding of learning developed the least as it was expected. On one hand the reason for it is that understanding thinking has several components and such components get connected more slowly. On the other hand understanding is never independent of acquired experiences and learned knowledge and these elements are built and grow richer also slowly. The functioning of memory and attention are bounded more to the situation given and these learned methods can come into full display more distinctly in this way.

2. Connection of learning methods to intelligence and school achievement

As we indicated before we performed inquiries regarding not only the learning methods but we wanted to disclose the connection of learning methods to other factors as well. Such factors are intelligence and school achievement. What do the correlation calculations show? (*Table 2*)

Table 2.

	LM	*DLM*	*VQ*	*PQ*	*IQ*	*SchA*
LM	*1.0000* [b]	*.0034*	*.1793*	*.1699*	*.2353*	*.2568*
DLM	*.0034*	*1.0000* [b]	*-.1796*	*-.0583*	*-.1545*	*.2664* [a]
VQ	*.1793*	*-.1796*	*1.0000* [b]	*.0678*	*.6670* [b]	*.1106*
PQ	*.1699*	*-.0583*	*.0678*	*1.0000* [b]	*.7871* [b]	*.1408*
IQ	*.2353*	*-.1545*	*.6670* [b]	*.7871* [b]	*1.0000* [b]	*.1853*
SchA	*.2568*	*.2664* [a]	*.1106*	*.1408*	*.1853*	*1.0000* [a]

Number of cases: 78 *1-tailed signif: [a] -.01; [b] -.001*

(LM: Learning methods, DLM: Development of learning methods, VQ: Verbal intelligence, PQ: Practical intelligence, IQ: Intelligence-quotiens, SchA: School Achievement)

Conclusions

1. Although there is no significant connection between learning methods and school achievement the value show that learning methods play an important role in effectiveness of learning, thus the development of learning methods are essential for the talented children as well.
2. On the other hand the development of learning methods and school achievement are in significant positive correlation. In the background of this fact there must be that children learning better are more receptive to the new learning method according to the requirements and this is one of the reasons why they can perform better.
3. There is not significant correlation between learning methods and scores of intelligence. Thus high level of intelligence does not run automatically together with developed learning methods. That is reasonable ground for believing that special development of learning methods is important even talented children.
4. Although just a low degree but negative correlation is observable between development appearing in learning techniques and scores of intelligence. In the background of this fact there must be the reason that the lower the intelligence is, the more new things are given by a developing program for a pupil. This can also be a general problem and not only the problem of talented pupils.

Comparison of boys and girls. Values of correlation (*Table 3* and *Table 4*)

Table 3. Boys

	LM	*DLM*	*VQ*	*PQ*	*IQ*	*SchA*
LM	*1.0000* [b]	*-.2077*	*.2335*	*.1755*	*.2846*	*-.1192*
DLM	*-.2077*	*1.0000* [b]	*-.2394*	*-.0098*	*-.1648*	*.2496*
VQ	*.2335*	*-.2394*	*1.0000* [b]	*-.0905*	*.5584* [b]	*-.0484*
PQ	*.1755*	*-.0098*	*-.0905*	*1.0000* [b]	*.7740* [b]	*.0536*
IQ	*.2846*	*-.1648*	*.5584* [b]	*.7740* [b]	*1.0000* [b]	*.0300*
SchA	*.1192*	*.2496* [a]	*.0484*	*.0536*	*.0300*	*1.0000* [b]
	Number of cases: 34			*1-tailed signif:* [a] *-.01;* [b] *-.001*		

Table 4. Girls

	LM	*DLM*	*VQ*	*PQ*	*IQ*	*SchA*
LM	*1.0000* [b]	*.2262*	*.1386*	*.1636*	*.2011*	*.6110* [b]
DLM	*.2262*	*1.0000* [b]	*-.1573*	*-.1144*	*-.1691*	*.2915*
VQ	*.1386*	*-.1573*	*1.0000* [b]	*.1881*	*.7118* [b]	*.3040*
PQ	*.1636*	*-.1144*	*.1881*	*1.0000* [b]	*.8199* [b]	*.2318*
IQ	*.2011*	*-.1691*	*.7148* [b]	*.8199* [b]	*1.0000* [b]	*.3512* [a]
SchA	*.6110* [b]	*.2915*	*.3040*	*.2318*	*.3512*	*1.0000* [b]
	Number of cases: 44			*1-tailed signif:* [a] *-.01;* [b] *-.001*		

Conclusions

1. The former (2), (3) and (4) conclusions are valid both for boys and girls. In this respect there is not any difference between them.
2. Nevertheless connection between learning methods and school achievement is significantly different in the two sexes. There is a negative value with the boys and a significantly positive correlation with the girls. The background of this fact may be that girls learn systematically day by day so learning methods being in their possession are profitable also for school achievement.
3. There is a significantly positive connection between school achievement and intelligence in case of girls but there is no such connection observable in case of boys. The reason for it can be found certainly in point (2).

3. Results of development of self-knowledge

The framework created by the self-knowledge group made it possible for us to investigate the opinion of children of themselves, using questionnaires adequate to their age.

We got also a picture of the children, namely they told us what some persons they consider important in their environment think of the children.

The essence of the questionnaire is as follows:

Twelve characteristics were listed on the paper, for example cleverness, beauty, independence, sincerity, power of will, diligence etc.

> *Instruction: Please evaluate yourself according to the following characteristics! Think of your form-master's opinion, what he (she) would do if he (she) expressed his (her) opinion of you in scores according to these points of view. Seven points would go to such a person of whom that feature is very characteristic. One point would go to a person of whom that feature is the least characteristic. Four points mean the average.*

Thereafter each of the children filled in also the other columns of the questionnaire according to what they think the opinion of their father, mother and class-mates is. Finally every child evaluated himself or herself.

We could compare the self-image and the supposed image of class-mates with the real opinion of the class-mates; every child was evaluated by every member of the group. Counting the average of the total score every child got a score that indicated the opinion of the group about the child in question.

At the end of the group process we asked the children to fill in this questionnaire again, but in that case only in two ways: we asked their own opinion and the supposed opinion of their class-mates, since we were curious to know if the psychological events in an environment quite different from school and the feedback from the school-mates change the self-image of the children or not.

Of course the whole group filled in the questionnaire regarding each of children again.

In the course of the statistical analysis we performed correlation calculations between each of the evaluation and we applied two-sample T-test for comparing boys and girls in each evaluation. Here are the data and the table of correlation (*Table 5* and *Table 6*).

Conclusions

1. From the table of correlation values for the connection of almost every evaluation. In other words according to the opinion of the children their father, mother, class-mates and form-master have the same opinion about them as they have about themselves.

Table 5.

	MO	*FA*	*OWO1*	*OWO2*
MO	*1.0000*	*.9695*	*.9367*	*.9356*
FO	*.9695*	*1.0000*	*.9411*	*.9443*
OWO1	*.9367*	*.9411*	*1.0000*	*.9909*
OWO2	*.9356*	*.9443*	*.9909*	*1.0000*
CMO1	*.9568*	*.9386*	*.9370*	*.9462*
CMO2	*.9522*	*.9379*	*.9374*	*.9531*
FMO	*.9336*	*.9275*	*.9520*	*.9623*
SchA	*.5387*	*.5338*	*.5043*	*.5218*
CMRO1	*.9376*	*.9256*	*.9165*	*.9384*
CMRO2	*.9325*	*.9147*	*.9153*	*.9331*

Number of cases: 39 *1-tailed signif: -.01, -.001*

(MO: Mother, FO: Father, OWO1,2: Own opinion 1,2, CMO1,2: Class-mates' opinion 1,2, FMO: Form-master's opinion, SchA: School achievement, CMRO1,2: Class-mates' real opinion)

Table 6.

	CMO1	*CMO2*	*FMO*	*SchA*	*CMRO1*	*CMRO2*
CMO1	*1.0000*	*.9949*	*.9541*	*.5396*	*.9519*	*.9466*
CMO2	*.9949*	*1.0000*	*.9592*	*.5467*	*.9553*	*.9525*
FMO	*.9541*	*.9592*	*1.0000*	*.5341*	*.9392*	*.9306*
SchA	*.5396*	*.5467*	*.5341*	*1.0000*	*.5677*	*.5619*
CMRO1	*.9519*	*.9553*	*.9392*	*.5677*	*1.0000*	*.9931*
CMRO2	*.9466*	*.9525*	*.9306*	*.5619*	*.9931*	*1.0000*

This fact indicates the lack of a definite social image but this is an acceptable phenomenon, of course, at that age. Nevertheless, the close correlation may also indicate that such important references have a striking role in the development of self-image of the children.

2. It is interesting to examine the connection between the first and second own opinion (given at the last meeting). This is the strongest of all of the correlations. This fact indicates to us that the evaluation of themselves remained very consistent during the period tested. The group process did not bring such new realizations for them that could lead to a change in their self-image. Quite the contrary: it helped to confirm it. Of course a certain psychological fact can also play a significant role in it, namely people are susceptible only to such feedback signs of the surroundings that fit with their own self-evaluation.
3. The next important conclusion is that there is not a strong correlation between their own opinion and the real opinion of their class-mates. The class-mates evaluate differently from the own opinion of the children about themselves. However, it is very interesting that there is a strong positive correlation between the supposed and real opinion of the class-mates. It shows that the children can predict the opinion of their class-mates very well. Similarly to the permanence of own opinion, the opinion of class-mates shows also a high correlation in the two different inquiries. We can stress

the same thing in this case as well, namely the group process helped to maintain the image formed and to stabilize the opinions.

4. In the course of comparison of boys and girls the two-sample T-test could not indicate evaluable result in any of the evaluation lines.

4. Connection between learning methods, self-evaluation and evaluation of other people

We were searching for relations between performance reached by different learning methods, self-evaluation and evaluation of other people as well. Here and now we report only such data that can be important for reaching significant conclusions. Values of correlation (*Table 7*):

Table 7.

	OWO1	*OWO2*	*CMO1*	*CMO2*
LM	*.2188*	*.2451*	*.0583*	*.0727*
DLM	*-.1985*	*-.1791*	*-.3018*	*-.2575*
Number of cases: 39			*1-tailed signif: -.01, -.001*	

Conclusions

1. There is not any significant correlation between learning methods and self-evaluation and evaluation of other people.
2. On the other hand there is a negative correlation between development of learning methods and self-evaluation although this correlation is not significant. A possible reason for it is that the poorer opinion the pupil has of himself or herself, the higher motivation he or she has for reaching a better result and the new methods offer a good opportunity for it. Of course, in the background of this fact there is another reason, namely the group-norm in a class of talented pupils is endeavouring for better achievement.
3. There is a similarly negative connection between the result of development of learning methods and the class-mate evaluation given by the pupils. The explanation of it is similar to the former: over and above the working-norm of endeavouring for better achievement the pupil aims at increasing his or her value in the school-mates' view and it can be reached through eminent school achievement and effective learning methods. That is why pupils are motivated for development of the latter factor to a great extent and it is shown also by the result.

Conclusions useful for further talent developing work

1. High level of intelligence does not run automatically together with developed learning methods. So special development of learning methods is important – even for talented children! In the course of this work we must pay attention to both direct and indirect developing. By direct developing we must make pupils train the learning methods which are missing from their methods – above all we must concentrate on the deep techniques. By indirect developing we must form the mental qualities which make the shaping of the more effective learning strategies possible.

2. Summarising the facts we confirm that our investigation found these children more talented than the average probably just before the great, typical, self-searching, uncertain struggles of adolescence when they were searching for the answer to the question: "Who am I?" We think it is important to help them with real self-knowledge and self-control (Freeman, 1991; Katzko Mönks, 1995). The special developing programs must contain this element – according to the age – as well.
3. In this personality-developing process – as research results also show – group-norms get a significant role as well. The endeavouring to the possibly best achievement which works in gifted pupils' class plays a decisive role in self-developing and self-control. Pupils in such surroundings also aim at rising their values in their class-mates view. To this the road goes directly through good achievement in school, indirectly through effective learning methods. That is also among the reasons why developing of learning techniques are so important at gifted children.

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NONSPECIFIC EFFECTS OF MUSICAL EDUCATION IN CHILDHOOD

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In our lecture we would like to speak about some practical pedagogical work started long ago and a research program started just recently. The practical pedagogical work is done in a Debrecen music school called Simonffy Emil and the Department of Educational Psychology of Kossuth University helps the school in its work. This cooperation consists in planning together the special music programs for groups with young children who do not yet attend school. During this process we lay an emphasis on the characteristics of a young child's way of thinking and world concept, about which we will speak later.

Our lecture can be divided into three parts:

1. *Precedents* – they took place in the same music school and also in groups with young children. It was a *complex art education* experiment.
2. *Present work.*
3. *Plans* – which are stimulated by the teaching and research experiences we have had so far.

1. PRECEDENTS

Simonffy Emil Music School has had a complex art education experimental program assisted by the Department of Educational Psychology since 1989. It started as an integrating program meant for young children. Its goal was a many-sided talent development through which they wanted to focus not only on one ability but they wanted to offer the possibilities of complex art self-expression (in the meantime to develop aesthetic responsiveness).

At the end of the one year program the child could decide alone, after trying a number of forms of art, which of them turned out to be the best to express himself or herself beyond everyday communication.

Besides music these forms were fine arts, literature language and motion. Of course educators of fields mentioned were also involved in the program.

This kind of integrating program really made the participating children in a playful way more responsive to look at the world with the eyes of arts. All this is proved by creativity tests, children's drawings and video recordings. And although playing is important and other forms of art are important too, the music school has to concentrate on educating musical children who have a basic knowledge of music and all the abilities to treat any work in the field of music. Both educating someone's personality in a special direction and developing the required skills are the necessary conditions of talent development.

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2. PRESENT WORK

And now we would like to go on to speak about present work. At the end of this part we will present our research experiences.

Our fundamental principles:

1. *Playfulness.* Playing with sounds is privilege of young children and composers. Composers play with sounds on an artistic level and consciously while young children do it spontaneously trying out their own voices. All children find out rhythmical poems when they are very young. The song that they spontaneously sing is a bit similar to the one they learnt in the kindergarten, but is different as well because they include what occurs to them. Such an involuntary way of singing can be called creation.

   Basically this kind of sound and rhythm finding singing is instinctive, but we can recognize all the elements that they experienced, influenced them, they are just recreated. Parents and relatives are happy to listen to the manifestation of such 'sound games'. But the older children get the less happy adults are with these experimentations and they expect their children to repeat songs perfectly well. So children's rhythmical ideas and tunes gradually die out.

   But musical creative work lets us have a look at the essence of music, which cannot be substituted by only listening to or interpreting it. That is why we are very careful about preparing improvising and tune creating tasks, which are involved in games. Such improvising tasks can be set at all levels, but it can be a happy experience as long as it is an easy refreshing game.

2. *Progressing from the simple to the complex.* Since improvisation consists of a series of decisions, which means that the child has to choose the best from a lot of possibilities (e.g. which rhythm or sound to choose). There are two things setting limits to this: one is the child's own knowledge, the other is the task given by the teacher. In an ideal case the two coincide, and a sense of achievement is ensured.

3. *Combining basic musical dimensions* (pitch, dynamics, tempo) *with other experiences of the sense organs.* We try to combine musical qualities with visual and movement experiences. Thus they can be more comprehensible, can be learnt an recalled more easily.

   Movement plays a significant role here. Everyone knows that music can become a complex experience only together with movement. It is especially important at the beginning of one's musical studies when the low level of musical performance from a technical point of view does not ensure a happy feeling. Movements, tunes and rhythms have so ancient an reflex based connections that are worth making use of (Kokas, K., 1972).

4. *Stressing opposites.* They are also meant to teach different musical qualities. There are games that focus on such opposites like quick-slow, small-big, short-long, low-high, loud-quiet, dark-light, cheerful-sad.

Loving opposites is, anyway, a developmental phenomenon in early childhood. For some time children do not have comparative concepts of things. That is why sometimes we need to show the other extreme if we want the child to understand a quality.

These were the most important principles that focused on in connection with improvisation and practice of certain musical skills.

The games and practices are related to the psychological approach of musical cognition, the studies of which are to explore what auditory patterns are activated during melody completion or what grouping/chunking and coding principles work when a child learns and recalls a tune (Deutsch, 1980; Dowling, 1973).

Summarizing the above mentioned we can say that this educational program focuses mainly on creative games, and spontaneity based tasks, and in the meantime makes children aware of, practise and broaden their knowledge of music, which is the basis of further creation. The new that the child has learnt is immediately used during improvisation.

And here we would like to present the results of our first research. We assumed that the children who took part in this program developed more rapidly in other cognitive skills as well. But before we tell any details about the conditions of the research, we would like to share some of our thoughts which in our opinion justifies the assumption.

From different researches on talent we all know that giftedness can be recognized in cognitive factors like general intelligence level, logical thinking, abstraction skills. This is especially true in connection with talent in sciences. It is obvious that intuition plays a significant role in perceiving a musical (or artistic) experience and also in creating. Still the question arises: what is the connection between musical knowledge and cognitive skills? Experiences told by music teachers also justify our assumption:

- Children who cannot sing and have no ear for music can accomplish tasks – if they are 'clever' – that more musical children can not.
- It is true the other way round as well. Some children believed to be particularly musical children do not fulfil the teacher's expectations because of the lack of certain cognitive skills.

The famous Hungarian music educator Zoltán Kodály puts music in the centre of education but not for the sake of music. It is one of his educational concepts that music is an important means of the development of personality. He stresses – and few people know it – that musical education contributes to the development of higher psychological functions the affect of which reaches far beyond the special contents of music.

Some examples:

1. The link between music and mathematics is evident. This does not mean that children with an ear for music are better at mathematics. It means that children who have a good education in music can equally develop in mathematics. Many components of musical knowledge (making rhythms, realizing and making intervals) rely on a logical way of thinking and at he same time develop it.
2. Singing day by day, learning songs and their texts all contribute to the development of memory, vocabulary, expressiveness.
3. The chapters in the history of music can be integrated very well into the knowledge of history, literature and fine arts.
4. Keeping the dynamics and tempo increases concentration and attention.
5. A good ear for music is generally in connection with language skills, spelling and learning foreign languages.
6. Music writing trains accuracy, orderliness and precision.

In our study we compared two groups in their cognitive skills. In the experimental group we had those kindergarten children who had taken part in the special program and wanted to go on studying in further classes. In the control group we had children who were of the same age, but previously they attended traditional kindergarten music groups and who

Table 1.

	Number of cases	mean	Standard deviation	Standard error
Group 1	20	81.05	12.601	2.818
Group 2	20	90.90	8.328	1.862

		Pooled Variance Estimate			Separate Variance Estimate		
F value	2-tail prob.	t value	Degrees of freedom	2-tail prob.	t Value	Degrees of freedom	2-tail prob.
2.29	.079	-2.77	38	.009	-2.77	32.94	.009

enroled in the music school for the next school year. Such groups consist in singing together, learning songs and playing together, but all the activities are limited to *interpretation*. There is no creation, improvisation, making something new. To test cognitive skills we chose the Coloured Raven Test. As we all know it is the adoption and not the manifestation of knowledge that is tested by Raven. To complete the task children need a series of logical steps, because they have to observe the shapes on the matrices, they have to find the logical link between them, they have to imagine the missing shape by studying environment and from the six possibilities they have to find the suitable one.

The main point of the analysis was the following: Is there a difference between the two groups' Raven tests? According to the t-test the difference is for the 2nd (special music) group (*Table 1*).

The average of the 1st group: 81.05. The average of the 2nd group: 90.90. The significance level of this difference is 0.009, in other words we can say that the difference is significant. Practically it means that a special musical program based on playful spontaneous and improvisational tasks can help the development of general cognitive skills.

3. Plans

Finally we would like to say a few words about the plans stimulated by the above mentioned.

1. The first question we want to deal with is the following: Do children when completing musical tasks (improvisation, interpretation) use cognitive strategies? Is there a difference between musical and unmusical children as far as cognitive strategies are concerned? So far the use of strategies with young children has been focused on arithmetics and reading.

   It has turned out that talented children have a lot of these metacognitive strategies while retarded children hardly have any (Sternberg and Davidson, 1986).

   - Strategy use can be taught more easily to talented children.
   - They can find out strategies by themselves as a result of the repetition of tasks.
   - They are also ready to change strategies according to the tasks they use given (Siegler, 1986). Strangely enough if the two contradict each other, they choose accuracy. They are demanding and even if the answers are mechanic, they tend to use strategies, with which they control the accuracy of the given answer. These are called "back-up" strategies (Siegler, 1984). E.g. in the field of music when we want to sing a big interval and we build it up with smaller intervals.

2. Our second question is closely connected to the first one. A consistent strategy based style has motivational factors as well. But for a child to be motivated to complete more difficult tasks it is necessary to associate effort with success. Our question is the following: Does the above described special program contribute to such an attitude? (In other words is it worth devoting time and energy to have success?) With children not thinking in a strategic way it has been realized that they often have attribution that the effort it means a lower level of intelligence. So they are not motivated to look for strategies, and they show no sign of effort when they are given challenging tasks. What can we do teachers and parents so that our children have favourable attitudes as far as the development of talent is concerned?

At this point the roles of motivational and cognitive elements overlap. And from now on the study of motivational factors means a challenge to us in the field of the development of musical talent.

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TEACHERS' OPINION ABOUT THE NATURE OF GIFTEDNESS

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The Department of Educational Psychology has been involved in research work concerning the development of abilities for decades. The development of giftedness became a central issue in our studies during the second half of the 80s. Since then we have had a close relationship with the schools of the region. The practical side of the development of giftedness is helped in a number of ways by our department. The most important ones are the following:

- We help to select talented children by different psychological means.
- We monitor their development by measuring their progress.
- We take part in planning the programs in every semester.
- We have workshops for teachers taking part in the program.
- We organize practical classes to help children to get to know themselves and to find effective individual learning strategies.
- We have lectures and consultation with parents.
- We organize workshops on communication development and pedagogical attitude development for teachers.

Even these few elements of our work show that we consider it to be important to provide in-service training for teachers who take part in talent developing programs.

As a result of our intensive cooperation with schools it turned out that there was a need for systematic in-service training so that teachers could go on with the program. So in 1992 we started our first postgraduate course named "psychological bases for the development of giftedness."

It consisted of 120 classes. This September we began the third such course, and teachers are increasingly interested. The colleagues at the Department of Psychology of HAS, especially Mária Herskovits, who is a well-kown Hungarian expert in this field, contribute a lot to our work. We discuss the following questions:

- an up-to-date interpretation of talent;
- the methodological problems of selecting talents;
- the role of school programs in the development of talent;
- the cooperation of school and family;
- the importance of advice and its forms;
- talented students with unsatisfactory achievement;
- creativity and verbality;
- pedagogical attitude and talent development;

- special talent development (music, mathematics, foreign language);
- international aspects of talent development;
- Studying practical workshops of talent development.

To give information about Hungarian and foreign researches we not only organize consultations but we also edited a two-volume collection of texts, and the third volume is just being prepared. (Balogh-Herskovits, 1993, 1994.)

In our present lecture we would like to highlight what teachers thought of the main problems of talent development as a result of the course they attended. We gained information with the help of structured questionnaires and informal interviews with the participating teachers. (Questionnaire will be shown later)

The questionnaire can be devided into two major parts. Some questions concern the theoretical background of the 120-class in-service training (e.g. how to define what a gifted child is like, how to treat a talented child with unsatisfactory achievements etc.)

Other questions concern individual experiences, opinions about gifted children.

We did not mean to test their theoretical knowledge. On the contrary, we were much more interested in what their attitudes are, what they think of today's Hungarian school system and of their own roles as educators. Both in the training and in the questionnaire we had primary school and secondary school teachers.

They came from different types of schools (e.g. musical primary school), so besides dealing with gifted children they face special problems and situations day by day.

They enrolled in voluntarily, nobody, not even the headmaster, forced them to participate in the work of the program. They were simply motivated to cope with the requirements of the training. We had 34 people, 33 ladies and gentleman.

We would like to divide our lecture into three further parts:

1. The presentation of the questionnaire
2. The presentation of the results
3. General conclusions, our further plans

As you can see it below 1 we wrote 15 different questions that are also related to one another in their contents.

1. The questionnaire

1. Give the definition of a talented child. (Also rely on your own experience in your teaching practice.)
2. What subcategories can you set up within the category of "talented child"?
3. Below you find opposing concepts. Circle the number that you think expresses the development of talented children in Hungarian schools.

Individual aspects	1	2	3	4	5	6	7	aspects of the society
Focusing on students	1	2	3	4	5	6	7	Focusing on subjects
Advice	1	2	3	4	5	6	7	Direct guidance
Working together	1	2	3	4	5	6	7	Teacher's lecture
Student plans	1	2	3	4	5	6	7	Teacher plans
Inner motivation	1	2	3	4	5	6	7	Outer motivation
Learning based on discretion	1	2	3	4	5	6	7	Learning based on strictness
Focusing on development	1	2	3	4	5	6	7	Focusing on results

Independence	1	2	3	4	5	6	7	Teacher dominates
Subjectiving	1	2	3	4	5	6	7	Objectiving
Spontaneity	1	2	3	4	5	6	7	Regulations

4. Which do you think are the most effective ways of developing giftedness at school?
5. What do you think of selecting classes according to talent (school achievement)?
6. How can you get a talented child with unsatisfactory achievement to have better results?
7. What kind of behavioral abnormalities produced by gifted students that you can forgive?
8. Tell the most pleasant experience you had with a gifted student.
9. Tell the must unpleasant experience you had with a gifted student.
10. What should a teacher be like who deals with talented students?
11. What are the means that a family should have to help a talented student to develop?
12. In what fields can teachers and parents cooperate to help a talented student to develop?
13. Besides school what other institutions and activities would you find useful for dealing with gifted students?
14. List some changes that you would make in your own work to deal with gifted students in a more appropriate way.
15. What use the major points that this course has changed in your own opinion in connection with triating talented students?

Participating teachers were given the questionnaires at the end of the course, and they had 90-100 minutes to answer the questions.

The majority of the questions are open so that teachers can list a good number of experiences, ideas, suggestions without any formalities. They made use of this opportunity, so we have a lot of data at hand to be studied.

In this lecture, of course, we cannot give an absolutely detailed survey. We would rather concentrate on some important questions, typical opinions.

Relying on our connections with a lot of schools and their teachers we can state that what we found in the questionnaires a clear representation of the way of thinking typical of Hungarian primary and secondary school teachers, about life, the treatment of gifted students and its ups and downs.

2. The results

- Major points in the definition of gifted children
  - In some school subject they have much better achievement (70 % of teachers answered)
  - have outstanding abilities in thinking (70 %)
  - are motivated (65 %)
  - are responsive to problems
  - know more than the teacher in some fields (50 %)
  - have a lot of ideas (45 %)
  - have good imagination (40 %)

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- have a good sense of humour (40 %)
- their emotional development lags behind their intellectual development (50 %)

It is seen in this list that from their own experiences the teachers used phrases that can be found in the literature of the topic as well.

It is especially important to realize that there is usually a gap between talented children's intellectual abilities and emotional selves. (A. Harry Passow 1991.)

It is a positive opinion that in certain fields talented children know more than their teachers. About half of the teachers asked considered this a significant criterion.

◆ As far as the opposite notions are concerned in question 3 teachers are not of a high opinion in connection with the treatment of giftedness at school.

In our summary chart you can see the average circled.

Individual aspects	1	2	3	(4)	5	6	7	aspects of the society
Focusing on students	1	2	3	4	(5)	6	7	Focusing on subjects
Advice	1	2	3	(4)	5	6	7	Direct guidance
Working together	1	2	3	(4)	5	6	7	Teacher's lecture
Student plans	1	2	3	4	5	(6)	7	Teacher plans
Inner motivation	1	2	3	4	(5)	6	7	Outer motivation
Learning based on discretion	1	2	3	4	(5)	6	7	Learning based on strictness
Focusing on development	1	2	3	4	5	(6)	7	Focusing on results
Independence	1	2	3	4	5	(6)	7	Teacher dominates
Subjectiving	1	2	3	(4)	5	6	7	Objectiving
Spontaneity	1	2	3	4	(5)	6	7	Regulations

It is obvious at first glance that the averages are on the right hand side. The results, the teacher's activities and dominance is stressed everywhere.

Outer motivations, regulations and subject centeredness are very typical.

These opinions are even more thought-provoking if we think of the fact that gifted students need more spontaneity, independence, less structured tasks directly meant for the individual. (Wei-Fan Kuo, 1992). We think that one of the cue notions in the list is result centeredness, which strongly influences some other factors.

We have already observed in several cases (and teachers mentioned it as well) that the psychic tension of gaining and preserving a good reputation of a school falls on a couple of excellent students. There are students that are expected to represent their schools at town, country and national competitions. This, unfortunately, can lead to exhaustion, indifference and even disgust with studying.

Perhaps we should give more freedom and independence not only to our gifted children but to the others as well.

However, it is not surprising that most of our teachers are aware of this, and they know the forms of effective talent development. It is shown in their answers to question 4. The most typical answers are:

- individual treatment
- announcing school competitions
- study circles, optional subjects
- school radio/TV

- grouping according to ability
- establishing special classes
- visiting bigger libraries, archives (so that they can research)
- going to university lectures

It would also be important to find out what obstacles they might face when carrying out there ideas (e.g. limited financial possibilities at school). And which are the problems that could be solved with a little creativity or resourcefulness.

For us the most interesting question was the 7th one. What kind of behavioral abnormalities produced by gifted students that you can forgive?

Let us see a list of the most common answers

- they ask a lot of unusual questions (45 %)
- interrupt the teacher's explanation (40 %)
- are too critical of others including the teacher (30 %)
- deal with other things because of finishing the task sooner than the others (50 %)
- read secretly under the desk because the lesson is boring (45 %)
- are forgetful: do not bring their things to class or lose things (55 %)

The numbers in brackets show that teachers usually shut their eyes to gifted students' faults.

However, one third of the teachers asked were of the opposite opinion.

They are convinced that we must not be too *sympathetic* with gifted students because excellent students need more discipline and self-discipline the lack of which may stop the development of talent. Questions 8 and 9 were interested in the most pleasant and unpleasant experiences with gifted students. In this section most of the teachers recalled cases when they were on good terms with a talented student, they could find a proper way of controlling him/her, and could motivate him/her. There are students whom the other teachers found hopeless because of their extravagant, hardly controllable behavior.

From the answers it seems that such situations are challenging for a teachers. Quite often the good old methods done with routine simply do not work. True pedagogical talent and resourcefulness are required to treat gifted and at the same time non-conformist students so that we can establish a fruitful cooperation with them.

All the negative experiences can be derived from the failure in this field. When the teacher could not influence the student, who therefore gave up the subject or activity.

He/she lost interest in school, did not apply to a university or college and consequently got lost. Most of the teachers were touched by this failure and they were trying to find the mistake in themselves.

Why could not why prevent it?

Question ten is directly connected to these problems, because we asked them to write down the most important qualities of teachers dealing with gifted children.

Our list contains the most important qualities mentioned by the teachers.

- open, accepting things (85 %)
- knows a lot in his/her subject (85 %)
- creative, imaginative (80 %)
- has a good sense of humour (70 %)
- can motivate (75 %)
- can adapt him/herself to the requirements of the student 55 %

- has empathy (50 %)
- has self-criticism (45 %)
- can debate
- enthusiastic, ambitious

From this list it turns out that what they think of an ideal teacher is the same as what we can read in a lot of other studies. (Gold, M.J. 1979)

All the teachers think that the above qualities apply for teachers dealing with average students, too. It would be ideal for all teachers to have these qualities.

As far as cooperation of teachers and parents is concerned the teachers emphasized that they should have the same values, requirements. Teachers and parents should set goals and find activities together. They should be in touch with each other and meet not only once in several months at teacher-parent meetings, and then talk about their experiences. It should be a day after day relationship.

What out-of-school activities and institutions are important in talent developing?

- summer camps
- excursions over the weekend with a definite aim (e.g. collecting minerals for students who like biology, geography.)
- performances organized by leisure centres (e.g. concerts, lectures on astronomy)
- meeting parents who can speak about interesting things from their own special fields

Fortunately, in many schools these are not simply ideas, they are put to the test. Just to mention one example: the talent developing program in Szerencs which has a teacher-parent club with regular meetings.

Both here and at the Munich conference we had the opportunity to hear about it. (Győrik F., 1992, 1994)

To finish the analysis of the answers to the questionnaires let me quote a teacher from the course whose opinion is almost a creed and we appreciate it very much.

> *"First of all I want to change myself. I have to flexible and capable of developing. I have to keep up with our ever-changing time and youth so that I can talk to them about everything. All children need different methods, methods, materials to be learnt. But we have to be patient. Today there are lots of courses. We have to go to these courses and give up our old ideas and methods if it turns out that they are wrong."*

3. Summary, our further plans

In our lecture our main aim was to draw a picture through the analysis of a questionnaire of Hungarian teachers' opinions who teach both average and talented students.

We wanted to show what they think of talent development, of its everyday tasks and difficulties and what should be done in the future. We relied on their practical experiences and knowledge they gained at a 120 class course.

As a conclusion we may say: they have a true-to-life image of the situation and they are ready to change. They know their responsibilities, and are aware of what a power it has for the future to deal with gifted students and to develop their mental capacities.

We are convinced that such challenges can be faced only with the cooperation and mutual help of psychologists and teachers.

And in this relationship both sides have to know how the other works and with what possibilities.

That is why we find it important to have informal talks with teachers, to organize courses and write questionnaires for them so that we can find out as much as possible about teachers' work and opinions.

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EXPLICIT AND HIDDEN PROBLEMS OF THE PARENTS

One Year at the Counselling Center for Gifted in Budapest

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First of all I would like to express my gladness that while the difficult position of existing institutions is a general problem in Hungary, I can report on the experiences of first year of a new institute. As a result of many year long efforts, supported by the Budapest Municipal Local Government, in the scope of the Budapest Institute of Education, based on investigations in the Institute for Psychology of the Hungarian Academy of Sciences, we have really met a demand encountered ever since we have been dealing with the study of the gifted: a demand of parents for counselling. Knowledge accumulating in the Counselling Center serves as a ground for new investigations, and we pursue systematic data collecting for this purpose. Now – after a brief survey of the activity of the Center – I am going to summarize some experience gained from talks with the parents and discussions in the Parents' Club.

It becomes ever more accepted that targeted development of gifted children is a part of "education due to everybody" to the same extent as the development of all kinds of handicapped children by various methods. The theoretical background is similar, but highly able children require different development methods, and so are those who have faster rate of progress – e.g. skipping methods rather than breaking tasks into minor steps. We educate our future leaders, to whom we leave the task to solve a variety of overt and covert, severe and difficult problems of the world – it is very important, how we prepare them. The value of 'profit omitted' is the most difficult to estimate. We will never know how many potential gifted persons will be lost, will achieve below their skills – since they achieve only what is expected from the average. We know more about the renitent ones, who, in the lack of suitable education, will turn their non-conformity associated with the talent against others or against themselves. Slowly it became accepted that care for the gifted is not something of a luxury that brings advantages to those who are in better position even without it, but an investment of public value, with very high rate of effectivity and return.

WHAT IS HIGH ABILITY?

According to a most general definition (Feldhusen, 1985), giftedness means such psychological and bodily preconditions in childhood and adolescence which allows excellent learning and achievement (in the broadest sense of the word), while in adulthood it provides for high-level activity in some socially useful field.

According to Feldman (1986), talent is a sensitive, occasional combination of emotional, intellectual and environment-related factors.

Talent shows an integration of three basic group of features – higher than average skills, creativity and task commitment (Renzulli, 1986). Without the need for completeness, below we list some of the features in different categories:

Skills above the average

- High-level, abstract thinking, ideation, combinative skill
- Good memory and speech
- Excellent mathematical logics, mastering spatial relations
- Special skills (e.g. musical, psychomotor, etc.)
- Adaptability, keeps his presence of mind in new situations
- Critical, independent thinking
- Quick, accurate, selective information processing
- Ability to separate important and unimportant aspects

Creativity

- Flexible and original thinking
- Richness in ideas, unusual solution of tasks and situations
- Aptitude to new and funny, even irrational ideas, activities, artistic pieces
- Curiosity, braveness and intellectual playfulness, risk-taking sometimes even to the degree of uninhibitedness in thinking and activities
- Less interest in conventions, non-conformism
- Tolerance of uncertain situations
- Sense of humour

Task commitment

- Ability of deep interest, enthusiasm
- A surprising amount of knowledge in certain areas
- Persistence, independence – often stubbornness
- Motivated from inside, driven by interest
- Self-confidence, ego-strength, a belief in his own ability to create important things
- Setting high-level goals in fields of interest
- Self-criticism, alternating response to criticism by others.

If we compare a 1918 definition by Géza Révész to this one, we will surprise as to its differentiated and time-resisting nature of the former. He defined the components of "aptitudes to high ability" as follows:

1. Intelligence
2. Intuition, spontaneity (term "creativity" still was not in use)
3. The child's behavior
    - as he selects the one that fits him
    - the eagerness as he jumps onto it
    - persistence
    - intensive, prolonged, spontaneous interest.

We can see that this definition almost entirely covers the components of the Renzulli model, and, except less usable, one-factor talent models that focus only on intelligence,

practically each definition considers these components with more or less difference only in emphases and details.

If we think over these features, it is obvious that *many of them, or certain combinations of them may become sources of behavioral, adaptation problems*, and educational methods that are generally good, here may be either ineffective or overtly unfavourable – they may make the child originally non-conform by reason of curiosity, creativity or increased need for activity a really renitent one. On the other hand, it is very important that these children should be educated for high achievement and adaptation in some socially adapted way.

Of course, definitions are of quite general nature, and a question always arises, namely *where the boundaries are to be drawn, which percent of population can be regarded as highly able?* Of course, no answer of principle can be given to the question. Obviously, no developing programs can be written for Leonardos and Mozarts. The pragmatic approach suggests that "we have as many gifted children for as many we have sufficient money and teachers in the developing program!" This is only a half-joke, if we consider that e.g. Renzulli *considers 25% of children as a highly abled prospect*, and involves them in the developing program. But it is seen immediately that in normal practice we have money for less than that percentage. In optimal case, definition of high ability and the severeness of selection depends on the nature of the program and the tools available. For luck, ever more widespreads an *attitude that focuses not as much on identification, but rather on the developing process*. This means that following a multi-aspect, and not all too limiting selection, an index of potential high ability is progress shown in the developing program.

As a result of this attitudinal change, many parents come to us by reason of their gifted or thought-to-be gifted children. In addition to individual counselling for the parents, the Center for Gifted launches enrichment programs for the children as well. We offer opportunity for the parents to come to monthly meetings in the Parents Club, which works mainly as a problem discussing group.

Counselling

We are available for children and parents *where abilities above the average are obviously seen, and parents and teachers expect help in their development, in related problems.*

They receive professional help from psychologists in their educational and developmental problems, and, in cooperation with teachers, they are given advice in selecting appropriate school type and/or supplementary programs. The majority of the 207 children who came to us (a total of 166) are aged 3 to 10, so they are highly dependent on their parents and teachers in all respect. More than two thirds of applicants are male.

Application is made through the phone, when the parent is given an appointment from the psychologist, where she appears alone, or together with the child or the spouse. As opposed to the Educational Centers, here we see *relatively many fathers*. Perhaps in these families the active participation of the father in education, and his true interest in the child's intellectual development are very important. The first interview usually lasts for one and a half to two hours – this is when the parents display their questions, and in the light of this the discussion is either closed or new appointments are specified.

Our basic principles that determine the counselling process are as follows:

- the role of the family is determinant, school is only of secondary importance
- *there are no so strict frameworks within which no alternatives could be found*
- we always focus on the whole personality of the child, and not on certain abilities only

- problem is caused not by giftedness itself, not the surplus, but the lack of something (e.g. that of emotional maturity, social skills, supportive environment, etc.)
- reflections are to be adapted to the demands of the parents.

The depth of counselling may widely vary according to the demands of the parents. *The most exciting problem of all kinds of counselling is that what the actual question is, what is to be answered.* From this point on, the success of our work depends on the proper identification and handling of this basic question.

The main problems the parents come to us with are as follows:

1. In the pre-school age

The most common situation is that the intellectual development of the child turns out to be quicker, more intensive than usual, than that in the elder siblings. This may bear many marks: especially good memory, outstanding logics, calculating in thousands, inquiry of unusual intensity, early spontaneous reading, or some special interest. This is met by most of the parents with some ambivalence – they are glad, but have some fear, too. This is associated with some "different" behavior of the child: speedy intellectual development is accompanied by emotional immaturity, and the parent is uncertain about how to handle these phenomena. Parents who come to us feel themselves responsible that they give the best education to their gifted child.

The main questions:

1. Is the child really highly abled, even if seen by external, "objective" eyes?
2. How high is his IQ?
3. Which is the field of the child's talent? Is it necessary to specialize him right now?
4. How can he developed, is not forced development harmful to him?
5. The parent wants to find a good kindergarten, or wants to change the present one
6. Is the child mature for going to school at the age of 5 or 6?
7. Discrepancy of intellectual and emotional levels of development
8. Educational problems.

2. At the age of schooling,

all problems are ranged in the question of school choice. The parents rightfully feel that they must have an important decision, that a bad choice is actually incorrectable. What makes the issue more difficult is that there is no objectively good solution. Besides the actual situation of the family (place of living, financial resources, helping members of the family), further important factors are the family value system, the expectations, the child's individual features, their acceptance by the parent, etc. Naturally, a frequent question is whether the child just over six should go to school or not yet.

3. In schoolchildren,

besides questions as to "is he highly abled, and if yes, in what", the most frequent ones are as follows:

1. The parent is not satisfied with the school. He thinks the teacher is not good, or the school does not properly appreciate the child.
2. The parent thinks the school gives all too little; he seeks another school for the child, or some surplus activity, or wants the child to skip a class.
3. The parent thinks the child achieves under his abilities.

4. The child has adaptation of behavioral problems in the school.
5. The child attended school in an other country, re-adaptation is difficult.
6. The parents want the child to go to eight- or six-class secondary school.

It is obvious even from this brief survey that there are questions to be answered easily and less easily. In the majority of cases, the situation is "normal", the parent sees the problem realistically, and handles it according to its actual weight and importance. However, a variety of problems can be hidden even behind the most banal initiating question.

The list of questions show that *an alloy of two different kinds of counselling is needed,* with the center of gravity changing, as with career counselling.

A part of the questions is about *information*. In the changing school system, difference between schools ever increases, considering their financial possibilities, objectives, richness of their programs, or the mentality of the teachers. Information is always mediated as embedded in the whole context of the counselling process, e.g. achievement-centered parents should not send their children to personality-centered school, and vica versa.

The second group of counselling topics is formed by *the handling of questions as to the child, educational problems, conflicts with the school*. There may be no simple answer even to the most simple question. Duration and depth of counselling, dealing with the child depends on the child's age, the nature of talent and/or problem, the demands and personality of the parents.

In harmonic families, a single talk is usually sufficient for the answering of the educational questions of the parents. When the child's development and behavior is discussed, several typical features are mentioned. In addition to those listed above, the parents often report that the child is intensively energized, has a comprehensive field of interest, sharp logics in his questions. This multifaceted, sometimes opposing cluster of behavior is not easily forms a unified pattern for the parents. Making them conscious about this apparent incoherence helps the parents in understanding their children: *it is impossible to "carve down" the less agreeable features from the ones that are sources of joy and pride*. A brain in permanent work cannot be stopped at any moment, passionate interest and curiosity are associated with a certain degree of self-directedness, the original mentality often does not allow the child to perceive conventions. All these make the child less adaptive, and somewhat tiresome for the parent. In general, this is not too difficult to make acceptable for the parent, in many cases they say they felt so even earlier, and are glad that this is a normal phenomenon. A further question, of course, *what kind of adaptability level can be developed even so*.

The issue of this *boundary* will return in the most different decisional situations and conflicts. In school-related conflicts, it is important to reveal whether the conflict is "important", or it by nature that can be solved by changing school, or will reappear in any other environment. The issue of *how to solve or tolerate the conflicts* is often a central problem. We have to examine the case carefully, so as to clarify whether the uneasy hand of a highly intellectual child will prognose learning problems, and some special development is needed, or it is to be accepted that he will never write or draw in an excellent manner, but this is no problem, because the child does not have to be perfect in all fields. In the same way, it is again an individual issue whether the teacher is really unable to individually handle the otherness of the child, resulting from his high ability, or it is the parent who expects individual handling of such high extent and intensity which is not only impossible, but not even desirable in the school. We have examples for everything and for the opposite of everything.

HIDDEN PROBLEMS

A well-known experience in psychological counselling is that the problem exposed at the beginning is not necessarily the real or the most important one, or the true weight, the importance of the problem may even be irrealistically enlarged. To the less extent a counselling seems to be "clinical", the more frequent is the "mask" in advice-seeking, and therefore these forms of counselling play an important role in the socialization to mentalhygienic culture as well.

The hidden nature of a real problem can be of different degree:

1. With certain questions it is easier to consult a psychologist than with others. There are issues which are not regarded as stigmatizing for the client. For example, very problematic adolescents come to counselling because in this manner they do not have to bear the label of disease of deviance neither before themselves, nor before their environment. In our case it often happens that the parent uses us as an educational counselling office – he is aware of his other problems, and he himself handles as a stuff of secondary importance whether his child is highly abled – if at all she is.
2. The problem they come with is though real, but behind it – either as its cause or irrespectively of it – there are issues of absolutely different nature. In general, overemphasizing a problem (e.g. choosing school) calls attention to some underlying issue. For example, a carrier decision cannot be solved because identification with the father or with the mother is unsolved, or the child would really in need of teaching conditions different from the average, but his restless behavior is caused by one-sidedly intellectual attitude of the family, where little attention is paid to the emotional needs of the child. It is of different depth that the problem can be discussed with the parents; many of them had guessed the relationship even earlier.

   The mother of the six-year-old Orsi reports in the Spring with a question whether the girl, who can already read and write, should go to school. One month later, when the meeting is realized, the question is already decided: on the advice from the kindergarten, the child still will not go to school, but the mother would like to know her abilities. She says the child draws well, has good memory and fantasy, and their family life is harmonic. The parents work very hard for the outstanding level of living, they have hardly any time for anything else, when they are together, the child solves tasks on voluntary basis. For the second time, the child is taken to us by a baby-sitter. The little girl is tensioned, is sweating, trembling while solving the tasks. Her HAWIK IQ is 125, her drawings are skilful, but schematic. The mother does not come to discuss the results. In the Autumn she phone calls us: she has troubles with her daughter, who is very sensitive and cries a lot. She renounces the fixed appointment, the next one is still ahead us. The psychologist has the impression that the mother, though in an ambivalent manner, wants to speak about her own problems – which are well reflected by the child: pushing emotions into the background for the sake of performance; and this is the only way of adaptation the child tries to display, but it is all to difficult for her.

3. The client parent holds the problem seen by him as a shield in front of him. He is not apt to speak about anything else, he blames the hostile environment for everything. This is the case when the giftedness of the child is regarded as the only cause of his social non-adaptation, while on the other hand, the parents themselves have communication difficulties. Another typical situation is when the parents blame the teacher,

and do not realize that their exaggerated expectations are irrealistic. In these cases the possibility of true counselling is doubtful, unless the parents' needs are turned toward psychotherapy.

TYPES OF UNDERLYING PROBLEMS

1. One-sidedly intellectual mentality of the family.
The parents are interested exclusively in the intellectual performance of the child, or maybe his IQ. They are blind to emotional, communicational problems.

This is a great problem because the greatest problems of gifted children up to the age of 10-12 are given from the fact that they intellectual and emotional maturity are not at the same level, there is discrepancy between the two. Once they are classified as gifted, and ask questions that aim at gaining further knowledge, this is satisfactory for all around them. Children need this, and this is the easiest way, and is joyful for the parent to see that his child is able to acquire new knowledge. The emotional deepening of knowledge is the study of different aspects of the same thing – to mediate this comprehensivity is a difficult task, and many parents simply renounce it (Landau, 1990). A magic circle develops, if the parent not only does not/cannot want to help to reduce this discrepancy, but even increases it by all his forces.

2. Over-emphasized ambition.
The child has to spend every moment in a "useful" way, only the developing games are allowed, new and new developing possibilities have to be found..., excellent performance is essential always and in everything.

An inseparable part of creativity, and so of giftedness is that not only the result, but the process itself is a source of joy. If the interest of the family is directed only to the result, this will force the child to long for some new and new success, and will not be able to go along his life path joyfully. It will be difficult for him to accept failure and to learn from it, because activity itself will not be all to important for him, he is interested only in the result. Though it is important to develop task commitment, its one-sided over-emphasizing will make impossible that playfulness, risk-taking – and so future creative production – may develop.

3. The parents' problems
The parent sees the child's situation through his own problems (increased need for safety, anxiety, difficulties in communication), and this inhibits real problem-handling and solving.

> *The father of the six-year-old Peter reports with a problem that he intends to find an appropriate school for his son. Soon it turns out, however, that the task is insoluble, since questions arise with tragic emphasis: "What if he will not like the teacher?", "What if some teachers will not evaluate Peter at his real value?", "What if the child later wants to change school, and has to adapt himself into a new environment?", etc. As in the folktale where the young wife burns out in tears on the day of wedding that maybe the chimney will fall onto the head of her child to be born in the future... The need for safety, exaggerated to some irrealistic extent, with which the father intends to design the school career of his child was surely connected to the problems of his own personality.*

4. Role confusion in school setting.

Even the best school system is based on general norms. In optimal case, these norms meet the requirements of a wide circle of children. Therefore they are non-satisfactory to the gifted child, because he needs individual handling or that adapted to a smaller group. Thus, erroneous is a parental behavior which transfers the responsibility of education fully to the teachers, from the very moment of the child's entering the school – the role of the home, the parents remains decisive even then.

A part of school problems really origins from rigid, non-differentiating handling of children, from the lack of real challenges. Though even boredom comes not always from the fact that the teaching material cannot evoke interest in the child. A frequent reason is that insufficient attention is paid to the child, so that he finds himself not in the center, as the case would be at home (Landau, 1990).

Stories told by the parents about school problems seem to outline a special disorder of roles, namely as if the parent (mostly the mother) would act not in her own role, or as if she would expect parental role from the teacher. Three types of this role confusion can be discerned:

A. The parent takes the role of the teacher, or permanently judges her and the school itself. It is not that he himself would teach the child, but he wants to decide what and how should be performed in the school.

B. The parent takes the role of the child, as if he wanted to maximally satisfy the expectations of the school. E.g. in the Parents Club, the mother of Norah, a second-grade pupil complains that the girl is anxious in the school, wakes up with nausea and headache in the morning. Than it turns out that when in this highly selected English-specialized school the teacher gave difficult tasks to the children, many parents helped their children, e.g. looked up the required knowledge in lexicons, wrote stories, so the teacher required ever more and more – from the parents.

C. The parent expects from the teacher (even if not consciously) that she meet all requirements of the child as to emotional, acting, individual handling, as if she would be the mother, and even a mother with symbiotic relation with the child, and is deeply hurt when this is not given to the child. In many cases it is very difficult to decide whether the case is the ignorance of general rules of the game or some pathological relationship.

It is still ahead us to systematically investigate the underlying causes of these role confusions. Separation of roles, clarifying the different socialization tasks of the school and the home, and the related behavior are decisive in the development of gifted children, so that they can adapt themselves to required norms and preserving their individual way of thinking at the same time.

Summary

Experiences of the first year of the Center for Gifted have called our attention to a fact that appropriate identification of explicit and hidden problems of the parents are of decisive importance in the design of the counselling strategy to be followed.

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GIFTED CHILDREN'S EARLY YEARS BY PARENTAL INTERVIEWS +

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INTRODUCTION

I am going to describe you some practical aspects of the environmental influences on the early years of the gifted child's development: how social factors work in vivo, how special effects, illnesses or disabilities cause strong influence on the later achievement.

In trying to find a definition for giftedness we must examine the problem of genetic and environmental factors. Both factors are 100% responsible for the development of a child it is obvious now in the science.

In addition to Renzulli's (1978) personality triad, Mönks introduced the social triad. He regards human development as the result of the interaction between the individual and his/her environment. The social settings of Family, School and Peers form the main interactional opportunities to meet and learn from other people. Each individual needs "significant others" as models and agents for his/her development. These significant others come mainly from these social settings (Mönks, 1992).

Tannenbaum (1983) in his psycho social definition described besides superior general intelligence, distinctive special aptitudes and right blending of nonintellective traits, the challenging environment and good fortune at crucial periods of life as necessary facilitators for a child to become truly gifted.

Tabackman (1976) emphasised the role of the family in the development of the gifted children, and suggested more research on this topic.

Researchers seek consistent patterns in biographical data to provide clues to conditions tending to develop creative potential. One of the most complete studies of creativity began in 1949 at the Institute of Personality Assessment and Research. Mackinnon (1975) found in the biographies of IPAR subjects, that there had been usually an effective adult member of each sex present in the child's life.

Adults who achieved high level of success usually agree that they could feel their parents' and teachers' competent assistance during the school-years (Davis and Rimm, 1985).

Berry (1990) described the findings of a major study on the cultural backgrounds of those exceptional scientists who had won a Nobel prize. The fact, that family and cultural backgrounds are important came as no great surprise, but the magnitude of this source of influence was astonishing. For example, in the majority of countries that have produced Nobel prize-winners in the sciences the proportion of individuals from Jewish backgrounds who had won prizes was much higher than that of Gentiles. Protestant countries produced far more prize-winners in science than the Catholic countries. Productive scientists were drawn from a few large metropolitan areas in Catholic countries. Contrary in Protestant countries they distributed between the different parts of each nation.

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Table 1. Measures and tests used in the present study

Instruments used	*Age*	*Construct measured*
Raven Standard Progressive Matrices	*9, 14*	*intellectual potential*
Advanced Raven Progressive Matrices	*14*	*intellectual potential*
Torrance Circles	*9, 14*	*divergent thinking*
Teacher Rating Scale	*9*	*evaluation*
School Marks	*9, 12, 16*	*school achievement*
"My family" inventory	*12*	*social-cultural background,*
Semi-structured interview	*14, 16*	*family background*

Ericsson, Tesch-Römer & Krampe (1990) points out that long and intensive practice is essential for high level of success, and to reach the highest level always requires support and encouragement that can be available from other people, especially the parents.

There is much evidence for the effect of the environment of the developing child. We have to step forward, and search for concrete facts, which cause differences in the development of giftedness. We have to make obvious the way genetic and environmental factors exert their mutual influence in the everyday life of a child.

Statistical analysis

I am going to present you some statistical data and some further research results through case studies. I have tried to find effects that may help or inhibit the development of giftedness in concrete cases. I have searched not only the traits of positive nurturing background, but all effects that play an important role in the development of a gifted child.

In our follow up study we have examined more than thousand children with different ability tests, and chosen the upper 10% as possible gifted children. We made further individual examinations, and explorations with the selected children. We carried out interviews with their parents as well (*Table 1*).

I would like to show some data I gained from the whole sample. It is not surprising, that you can find more children predicted as gifted in higher social-cultural background. It is true whether we look at the families' or the schools' SES levels (*Table 2* and *Table 3*).

Table 2. Distribution of children predicted as gifted (N=115)

School No.	*Schools' SES index*	*Possible gifted (%)*
3.	*4.5*	*16.6*
7.	*4.4*	*15.7*
4.	*4.4*	*7.6*
8.	*4*	*10*
5.	*4*	*13.1*
9.	*3.9*	*12*
0.	*3.3*	*10.3*
6.	*3.4*	*4.3*
1.	*3.2*	*3.2*
2.	*2.5*	*2.8*

It is more interesting that children differ in the results of the culture-free called Raven Test, as well. In the higher schools children tend to be better in Raven's educative intelligence. We might be satisfied with the fact, that in 5 years the differences did not grow larger but rather slightly decreased. During the same period gifted children developed diversely. Although there was no significant difference among the three groups due to the fact these

groups of children were selected as highly able, after 5 years we find considerable differences.

Freeman (1990) reported the findings of a large-scale study financed by Gulbenkian Foundation, in which she interviewed unusually able children, as well as children of average ability who formed a control group. She found as we did that in the abler children poor educational environments led to a larger decrease in intelligence-test scores, compared with average children.

Table 3. Distribution of children predicted as gifted

Parents' SES level	*Numbers of possible gifted*
very high	*68*
high	*29*
medium	*13*
low	*4*
very low	*1*
total	*115*

We also examined children's scores in creativity tests. There were not any demonstrable differences among the various SES-level groups, neither among gifted nor non-gifted groups in the test scores.

Case studies

I would like to introduce to you some people, not only parents, but other adults who have helped gifted children without any idea that they are gifted educators. I will show you some methods they applied. I am going to introduce some people, not only parents, who destroyed children's development sometimes just through doing nothing, without any idea of the effect they would have on young developing minds.

There are special effects in the families and even in the individuals as well. Outstanding abilities often go with disabilities. Outstanding personality is outstanding in many ways and can sometime be disturbing rather than beneficent.

In the first two cases girls have to cope with their outward appearance. It is more difficult for a girl than a boy, if she does not fit to the common fashion on our belief of the normal female. An exceptionally intelligent girl may have the same feelings as an average one, but her soul may fight on an other way.

> *Andrea was born with serious disturbance of growth. Her left hand has not developed. Because of that her father could never accept the girl. Until 13 years there were no problem with her. She learned well she did what the others did. In the adolescence she became withdrawn. Her school achievement got worse and worse. She managed to get into a secondary school, but in the first year she failed. Her mother would like a traditional life for her daughter, but she does not want to marry, and does not want children. Her friends are far below her mental level. Her mother is frightened because of her daughter's behaviour, clothes and friends.*

Table 4. Social-cultural level of the examined schools and Raven Test results at age 9 and 14.

		Selected as possible gifted			*Not selected as possible gifted*		
School No.	*Schools' SES index*	*Raven at age 9*	*Raven at age 14*	*Increase in 5 years*	*Raven at age 9*	*Raven at age 14*	*Increase in 5 years*
3, 7, 4	*High*	*46.9*	*55.3*	*8.4*	*40.5*	*53.3*	*12.4*
8, 5, 9	*Medium*	*47.3*	*54.6*	*7.0*	*37.6*	*51.7*	*13.4*
0, 6, 1, 2	*Low*	*46.4*	*52.6*	*6.4*	*35.8*	*49.9*	*13.9*

Barbara had serious problems with her eyes. She had to wear thick glasses. She was pathologically fat and because of her bad teeth she could not close her mouth. Children made fun of her. She was full of inhibitions. Her parents supported her. They went to theatre, museums and travelled to enrich her intellectuality. The father, a graphic artist had a great effect on her mind. She had quick brain and very wide general knowledge. Her peers, step by step, admitted her because she always had the best ideas. Later she got contact lenses and dental treatment helped something as well. She remained fattish, but her alert mind and vivid personality envelop the outside appearance.

What would have happened if the two babies were exchanged at the hospital? Barbara's parents beside the most important gift, the acceptance, gave their daughter a way, to balance her disadvantages. Andrea had to cope alone with her deformity.

In the next to cases special children's special personality caused troubles.

Imre was a very vivid, difficult child. Some teachers considered him gifted, but the most thought he is unbearable. His father died when he was 13. It did not cause him any feelings of loss, because his parents had divorced many years before. Imre wanted to be a policeman when he was 14 but because of his low school achievement he had not got opportunity to choose a good school. He learnt to be a tiller. He got into bad company, and into trouble with the law. He managed to form a connection with the police in a way he did not intend. His mother got a nervous breakdown.

Csaba was an alert minded, very sensitive boy. His mother said he had been too good. He wanted to stand all demands. It was very important him to have others', especially adults' attention. He talked about anything just to have the attention. He was different from other children and very tiring. The nursery mistress could not accept him. He had no friends he was lonely. The mother dealt a lot with her son, but she felt he needs more than she can give. She chose judo as a sport that develops body and brain as well. Her son would be able to defend himself and this sport also gave good training for concentration. He was equal with his peers there. He learnt social skills he could utilise at school. He never had good marks at school. He remained different, but managed to study in a good secondary, and his mother hopes he will go to the university.

The mother who understands his son's needs especially special needs may support his development in the special ways. Mainly parents tend to lead their children to the average, even in cases, when it is almost impossible. ROSS (1972) recognised that child-rearing behaviour of parents is largely based on expectations derived from their image of the "normal" or average child, because this is the model most widely encountered and the condition the parents themselves passed through during their childhood. When the child does not conform to this image the parents have to cope with the dissonance between their image of "a child" and the reality of "their child". Where the parents themselves have exceptionally high intellectual endowment this dissonance and the potential problem is reduced and such parents may have a greater problem if they have a child "only" average intelligence.

The next two cases show how much damage can be done to lower the achievements of highly able children by indifference and low expectation.

László is a withdrawn, introverted boy. His mother had an oncological operation during her pregnancy and thinks, this caused his shyness. Nobody considers him exceptional. He was average at school, and his mother was satisfied with his achievement. He is interested in technical studies. He won a competition in physics and he managed to get into a secondary school with special maths and physics. Unfortunately he could not keep the level and gave up the physics. The resignation is characteristic of the family. The mother's brother is a physician, but never came up to have a closer connection with him. László is a compliant boy, who never did anything special and nobody expects him to do so. Neither in the family nor at the school.

Gergely was always physically weak, thin and ill. When he was about 9 he lost consciousness for short times. His schoolmarks worsened he could not write readably, he slept too much. The school-psychologist diagnosed learning disability. Gergely did not have to learn a foreign language. Only one and half year later it was discovered accidentally that his cervical artery on the left side has a deformity. His brain hardly got blood from that side. After an operation his achievement improved, but he could never make up the lost years at the school. Nevertheless, he started to become a very successful chess player. When he was 12, he won many competitions. Two years later he stopped playing chess. He likes poems even he writes his own poems. In spite of all, his mother considers her son an average boy who should learn better. She wants him to finish the school and get a craft. Gergely learns electric in a school for vocational training. He does not like it and failed last year.

These children started to do well at a time, but there was not continuation. László's family dealt with his shyness and did not evaluate his achievements. Gergely's mother wanted him to learn well at school, and not to spend time merely with playing.

Now I am going to share with you two parallel cases. We can come to know very different attitudes in the same situation.

Zoltán's mother had an abortion half year before that pregnancy. She had to be at home. She "beautified" her connection with her baby, as she said. Zoltán had many little operations during his childhood. His parents divorced. He had tic when he was 9. After all syllable he pronounced, he had to cough. He was several times in sanatorium. Once an expert said that there was no vitality in Zoltán, he was fallen in his soul. However the mother believed on time he would show what he was in the reality. She sent him to a team named "Will". They cured inner spasm by sport, especially by swimming. They were hard, but measured everybody compared to him/herself, as the mother said. Her friend recommended a lady for teaching English. Aunt Margaret is a lady living for children. She plays with them, makes puzzles and several parties for them. They could go any time to her. She hates adults. There are always 8-10 children around her. Zoltán became a self-confident, smart youngster. Now he attends a good secondary. Although he has many arguments with his mother, she is satisfied and very proud of him.

Zsolt's mother like Zoltán's had an abortion a year before the pregnancy. She did her best for her baby. She had vitamins, medicines, etc. Yet due to her poor health, a Caesarean operation was necessary. The baby got a minor

cerebral haemorrhage at birth. He was in hospital for a month. He was somehow enervate as a baby. He became unconscious more times, but neurological deviation was not found. His teacher said he was backward compared to the others. He had tic at the primary. Her mother went to the doctor with him. He had medicines to cure his tic and his scrawly handwriting. Meanwhile the mother became pensioner because of her impaired health. She had mainly psychosomatic illnesses. She arrived even to the interview with countless medical documents of her and her son.
Nevertheless Zsolt was successful at school. His aunt, the mother's sister is an artist soul. She dealt with Zsolt, brought books, went to the music hall with him. The mother's twin sister is an expert in economy. She was many times with her nephew, as well. He was 6 when she bought him a computer, and it was a miracle in the family, that he was competent in it from the first minute. He learns computing in a specialised secondary-school now. He is successful there, but very impatient and negative with her mother. She lost her influence on him.

Two mothers two approaches. One was relaxed, believed in herself and it radiated to the son as well. She believed in him, and sought solutions to support him. She strengthened his soul, mind and body.

The other one believed in medicines and doctors. She had not enough strength even to help herself. Fortunately Zsolt survived all the procedures. He was lucky to have special aunts. They were special persons, they felt his special needs.

All these children showed good intellectual abilities at the primary-school. After five years, most of them remained similarly highly able by the test results. The most dramatic decrease in test scores appeared at Imre. Both his test and school achievements got worse. But it is not characteristic. The test results do not go with the school achievement in most cases, although the successful children's test scores are higher than the unsuccessful one's. (*Table 5*)

If we took more children, and looked at their data, it would be statistically obvious, that children coming from poorer families achieve lower scores, and fail at school more times, than wealthier ones. Nevertheless we can see from the case studies, that the main problem is not merely the low SES, but the lack of attention, the stimulating environment and persons.

Table 5. Test results of the children mentioned in the case studies

	Andrea	*Imre*	*László*	*Gergely*	*Barbara*	*Csaba*	*Zoltán*	*Zsolt*
SES category	*4*	*1*	*5*	*2*	*4*	*4.5*	*5*	*3*
Raven at age 9	*42*	*49*	*52*	*43*	*52*	*49*	*49*	*55*
Raven at age 14	*53*	*49*	*58*	*51*	*57*	*50*	*54*	*59*
Advanced Raven at age 14	*16*	*14*	*23*	*25*	*30*	*22*	*26*	*35*
Present school-achievement	*failed*	*failed*	*failed*	*failed*	*successful*	*successful*	*successful*	*successful*

Conclusion

In these cases we can recognise some ways how outstanding children can be supported. It is not a miracle. Belief in their abilities, expectations for their achievements, expectations that meet their abilities and motivations are essential. We could learn concrete possibilities for support. Very important and hardly mentioned one is sport. Many sports are available for young children. Different sports train their body and they learn to fight, wrestle with difficulties. They learn social skills in a situation, where they are just one of many others. As we could see, more mother chose sport as training for the child's personality.

Special persons were found around the successful highly able children. These adults are very similar to these children. It is essential for a gifted child to have an available person who understands him/her. There is less likelihood for children in low social-economical and cultural status to meet such a person. The loss in these cases is larger at able children compared to average ones. Many times they will not be just average, but turn to the other end. They refuse to suit the requirements they go on their own, often antisocial ways.

The main task is to provide opportunities for children to meet these important persons, "significant others". Parents and the members of the family are naturally the best solution. We have to strengthen them, give advice. Examination of successful children's families can provide more and more material to that work. Unfortunately it is not general, that parents are suitable to deal with their able children. We need persons who are similar to the gifted children, and can understand them. Special educators are not usually in the regular education, or they do not appear special in the school. If we provide situations, enrichment programs, teams, clubs what they find engaging, they will appear. These people like freedom, they work according to their own methods, standards and conceptions (see Aunt Margaret, Zsolt's artist aunt and the "Will" team). If we give room for unusual, irregular approaches as well, we will have the chance to receive new solutions. It is a familiar principle in giftedness, is not it?

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TO BE EQUALIZED OR BALANCED?

Difficulties in developing of gifted children

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We have often heard it said that among gifted people (artists or scientists), there are more neurotics than among the average population. The literature of the nineteenth century and also the first psychological writings made quite a cult of the opinions of this kind (genius and madman and so on).

Clinical experience does not quite square with this belief. A great part of people endowed with proper creative abilities keep exactly through their achievements their inner life in dynamic balance: they are able – though laboriously – to direct tensions onto the road of sublimation. The behaviour of children with special abilities even if they are declared to be gifted – often meet with suspicion or disapproval. In the family, at nursery school and at school they may represent educational problems from which teachers strive to get rid of usually saying: "This child is ill!" True enough it is more easy, more pleasant to educate an evenly harmonious child who is not out of the common rum.

The development of a specially gifted child raises however, serious problems. An outstanding ability can upset the balance of the functions, creating a disparity that multiplies the tensions that go with development anyway. At the culminating point of a developmental phase serious symptoms of a crisis may appear instead of the usual developmental shocks. In such cases it is difficult to judge whether we are faced with a temporary conflict incidental to development or with some functional trouble. On the bases of observations of early motion development in young children, Wallon underlines that it raises the suspicion of some pathologic development when a function refines to a degree of virtuosity. In the course of development, namely, each capacity factor has to fit into the behaviour system of the given developmental phase, so that a given functional level can insert itself, the single integrated functions may fall into the background, and in the interest of the functional whole they can lose part of their differentiation. Virtuosic functions differentiating separately, can signal the blocking or a pathological shift in the development of the system of capacities.

Wallon's examples refer to retarded children. In the more and more often identified autistic diagnoses the phenomenon is even more conspicuous, since it is not the peculiarity of the earliest period. In these children, virtuosic function can signal a true virtuosic part ability, that is "talent". A striking ability may make the parents and the teachers forget the bizarreries of the illness, lack of treatment may further the worsening of the trouble.

Paul is a slightly autistic boy. When he started school the oddities of his behaviour caused problems and that is why he was sent to a psychologist. Despite his adequate abilities he suffered, in the first three years, many fiascoes with his school-work and with adaptation into the task situation within the community. Therapy became successful when trusting in his good ear for music he started learning the piano. He progressed with striking proficiency so that after two years he played pieces from Bartók's "Mikrokosmos" as if he had "photographed" Kocsis's performance heard from records. Having had faith in Paul's musical talent his parents did not worry about the behavioural bizarreries characteristic for the disease, they had him enroled in a musical school abroad. Thus his treatment had to stop and the boy was out of the participation in a normal community of children. In the foreign

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surrounding, not knowing the language, the boy became completely isolated. Except for his piano lessons he spent his days in his mother's company. In his teens his bizarreries increased to such a degree that he was unable to practise regularly and had to change over to a less difficult instrument. When he was eighteen, both his state and his family's situation became critical but being exaggeratedly aware of his talent, he does not want to continue the treatment.

It can also be dangerous if intellectual development even if it is roughly balanced, progresses – as compared to the average – to such an extent that emotional life, the maturing of personality cannot keep level with it. Treatment of unevenly developing children shows that excessive tension, going with the discrepancy formed in the structure of personality may lead to a state of decomposition hindering development. A similar constellation has also to be reckoned with when discrepancy is brought about thanks to the outstanding ability and to parts of the personality. In such cases, instead of promoting the intellectual development of unevenly developing children, we have to fight discrepancy first of all, by bringing into balance and ripening the emotional factors. The task pedagogy and psychology have in these cases is a running competition with time, just like when we wish to attain the achievement which is to be expected in a given age. If between the cognitive and emotional parts of the personality we do not get integration enough in the storms of adolescence morbid development can manifest itself as an illness.

A sad case in point is that of Joseph who was six when he first came to the psychological consultation with problems of adaptation. The adaptational incapacity of the brilliantly quick-witted boy stemmed from his emotional immaturity and it took us three years of hard-work to instil into him an adequate task responsibility persistence and to a slight levelling of his emotional reactions. His always very apt, but often not quite appropriate ideas and associations kept alive – despite their excellence – the suspicion that the cauldron simmering in the depth carries in itself, besides creativity, the danger of desintegration as well. At the beginning of adolescence Joseph suffered a wholly unexpected serious attack of anxiety the worsening of which not even the interventions based on the boy's brilliant intellect, and on the firm therapeutic relationship could hinder: his schysophrenic state became stable and in later years the illness weakened also his intellect. The creative urges were drowned in working out bizarre, obsessive thoughts and customs. Our present knowledge does naturally not allow us to judge whether Joseph's brilliant associations in childhood were already the manifestation of his endogene determined illness. In any case even without the menace of any endogeneous trouble it is often seen that the insufficient integration of the parts of personality weakens the achievement that it can lead in troubles in the management of life and perhaps to a complete waste of talent.

In Cathy's case it was easy to see that her troubles were rooted in the insufficiency of integration. Their dynamics were hardly separable from the endogeneous breakdown of personality seen above. Driven by a sudden urge she matriculated at the School of Art without so to say any effort. After one year of enthusiastic work a troubles some love affair caused her to lose interest in everything, she gave up drawing too, she got lost in feelings of estrangement, bizarre moods and thoughts of suicide. She chose psychotherapy as a life-line. When under its effect she started again to work in the drawings she showed us in confidence, a world of phantasies, full of extreme aggressivity, of bizarre, sexual wishes and fears was displayed. It seems that her aloofness and disability to work developed as a form of defence since she has to use all her energy to curb the menacing world of instincts. Therapy made it possible for her to face her inner world through verbalizing instead of suppression, to drive the unacceptable urges into the channels of sublimation by means of her work.

From other examples one may infer that the free flow of destructive elements without integration can hinder the development of talent even without the danger of psychotic reactions. Bob was in his teens when his musical abilities had already unfolded to such a degree that on the virtue of respecting his talent, his teachers tolerated his unsatisfactory school work and his renitent behaviour. His progress in music was due mostly to his father's severity. He was a small child when he was taken to the psychologist because the deconcentrated, neurotic boy had no persistency, his responsibility for the task was not equal to his father's norms. Severity caused a paralysing anxiety that turned into aggression against authority. Rivality with his father's talent mobilized such a host of uncontrollable destructive phantasies, that despite of psychotherapic, educational interventions, they led onto a morbid way of life, to the paralysis of his talent and to the hardening of the theories justifying his fancies. As an adult he will be in the danger of becoming an unrecognized genius.

Psychotherapy of teenagers, unfolding their endowments with much more successfully, reveals that disintegrated parts of personality can cause – besides of inadequate productivity – other troubles too, and that the troubles can effect productivity in a negative way. Nicky's mental development in his early age was characterized by a brilliant and highly unbridled associative capacity. At about ten years old his gift for maths and music appeared at the same time, but it took a long time till thanks to persistent parental prompting and psychotherapy, his productivity became steady. In his teens he determined on music and learned to work assiduously for success. His emotional life is, however, still characterized by fluttering extravagance, in his relations he clamours for the immediate fulfilling of his wishes, just as small children do, he is hardly able to pay attention to other people's wants or to the barriers dictated by reality. It is to be feared that owing to his transports of temper he will often come into conflict with his surroundings and that his extravagance justified by his talent, may endanger his yet brittle working capacity.

On the other hand, it would seem that Roby is defending himself against his uncontrollable temper and insatiable emotional demands with a kind of asceticism. In contrast to the easy way in which he used to make friends and to his once overflowing communicative urges, as a teenager he lives exclusively for his interest in phylology. Shutting himself off from all sorts of relationships. Though he is yet a secondary school pupil, his reviews are accepted on university level which shows how gifted he is. Notwithstanding his intolerance of the bounds of society raised his teachers to advise private education for him. It is to be feared that now, being enclosed within four walls, the lack of social experience, so indispensable in his field of interest will obstruct the unfolding of his talent.

In spite of Nicky's and Roby's contrasting symptoms it seems that their yet infantile emotionality creates an intense discrepancy between professional commitment. The extreme expectations of society, working both in positive and negative direction in the name of talent, and ideological self-deception, cannot drastically reduce this tension. The danger of talents running to waste or of neurotic symptoms claim psychotherapic assistance.

A standstill in the development of talent in teenagers, the inner obstacles to attaining the chosen profession or rather the difficulties of adaptation make it imperative that work for keeping in balance the developing personality, for encouraging integration and maturity has to start already at kindergarten or lower grade age. First of all it is the capacity of making efforts, of persisting in a given task that has to be developed. Children who when they start school can read fluently or solve complicated arithmetic problems with uncanny ease will perhaps be ten or twelve when they notice that they have not learned to learn, that they are incapable to cope with monotonous or boring tasks, it is just because of their ready wit that these children often digress losing sight of the aim in view. In such cases the parents and the teacher have to bring it home to the child that similarly to children with weaker abili-

ties also he or she has something to learn, namely the concentration of the attention, perseverance and the bringing the task to completion. Unfortunately this educational work has no schedule whatever. With each child different means have to be used. There is however a guiding principle: referring to the child's intelligence we have to force him or her to accept the consequences of deconcentration and of avoiding the task.

Nicky's mother, for instance, would not have it that she had to stop working with her son among quarrels at his home lessons and to let him face at school reckoning due to his unsatisfactory work. When at last Nicky was forced to do his work unaided, the psychologist was able to make him realize the two-sidedness of his problem: on one hand he felt that the requirements were the whim and the tyranny of the grown-ups, while on the other hand he fell into childish panic when control seemed to get lax. Nicky, but also other children unable to work would reason in a highly ingenious way when referring to their own brains and talent, they considered a task to be superfluous. At the same time it was clear that his being different from his schoolmates, made Nicky uneasy, that despite his magniloquent explanations his self-appraisal was in great need of corroboration, as if his abilities his outstanding knowledge in maths or let us say in zoology were some kind of abnormality which cannot even counterbalance his failures met with in other fields.

Their worries are to a certain extent justifiable: without a stubborn capacity of work their outstanding talent will not be sufficient for a performance above or not even above the average. A condition to productive work is the formation of an inner regulative braking-system which in the interest of the current activity pushes the momentary urges into the background. Its balancing role can level school performance and will not hamper the unfolding capacity. Analyzing the childhood memories of writers and artists, Imre Hermann and Alice Hermann listed among the manifestations of talent, the fact that the questionees said they liked to go to school and to learn, that they were interested in what they heard at school and that they remembered with pleasure the teacher who took notice of their abilities. It is obvious that there are examples for the contrary as well. It would be worthwhile to examine what relation is there between the lack of the braking system in schooling age and the conflicts around productivity in adulthood. In any case, on the level of average abilities inner regulation and level performance go together while diligence in itself is not a pledge of outstanding production.

The many difficulties of adaptation and social contacts are in connection with the uncertainty of self-appraisal and the yet undeveloped state of the braking system. Very often a first or second grade child is unable to grasp why it is wrong if ahead of everybody he shouts the right answer to the question. He often defends himself asserting with a kind of superiority that the others are idiots, they can not answer any question. Meanwhile his own oddity makes him uncomfortable, he is unhappy because the others do not make friends with him or because he does not know how to make friends. He thinks, his intelligence gives him the right to behave provokingly, to criticise, he will not have it that he is unsociable and lacks adaptability. This is the field in which the psychologist's ego-building work is mostly needed.

In the case of Andrew it was interesting to observe the conflict with his schoolmates. Its first manifestation was rooted in his being jealous of his brother who is his junior by two years and is an accommodating, average intelligent child, easy to handle. And although his parents devote more time to Andrew and are much more tolerant with him, he feels that "that stupid brat" is much better off. In reality Andrew grudges him the easy way in which he adapts himself and expresses his tenderness, all things which owing to his fussy nature are impossible for Andrew. When in the course of therapy we discuss his conflicts on his bizarre-agressive ideas concerning others, I endeavour to query his attitude from the view-

point of the average adult and of the world of children. In our conversations we rarely come to an understanding, but after two years it can be seen that my opinion, my attitude – and naturally the concomitant attitude of his parents as well – got slowly integrated as a model.

At present Andrew reacts to the world in a more mature, more acceptable way. He also noticed that his relation with his brother has improved and that he has less conflicts with his mates. Following up his development, we learn an important lesson. The object of his cut-throat conflicts was his brother, the clashes at school can be considered as just weak repetitions. And yet his bridge to the average kids is his brother. Notwithstanding their heated quarrels with him he could play or find moments for something to do in common more easily than with strangers. His brother admired him openly and since he accepted him unlike other children, Andrew had the chance to realize that his ideas can be accepted, his feelings can be understood, that the average can take him in. This experience strengthens the process of maturing that began in psychotherapy. From time to time his wish to approach them pushes his fussy aloofness into the background, among his school-mates as well.

There were the brother as model is missing, it is much more difficult to evolve the process of adaptation. Martin is an only child, his parents are very busy so that there is no adult company to compensate him for the lack of a play-mate at home. His phantasy games, his computer combinations, his ideas, his quick solutions would be appraised by his contemporaries. Instead of that however, he tries to draw attention to himself with infantile clowning and all his new friendships end in failure, owing to his childish egotism and jealousy. He actually claims a degree of exclusivity as does a two-year-old missing his mother. In psychotherapy it was just the atmosphere of tender mother-child relation, that could allay, to a certain degree, his demonstrative and aggressive clamouring for attention. This allows us sometimes to reach a point in conversation where for a few seconds he comes to accept his infantile self-centredness and the fact that his great hunger for contacts hinders both the contacts suited for his age and the performance suited to his talent. Martin's true change still requires work that will take a long time.

The therapy of Andrew or of Martin shows that the ego-building therapy, can only be authentic and successful if the therapist truly respects his patient's talent, if he does not want to transform him into someone else according to his own ideas, but keeps in the foreground of attention – with continuous explanatory or critical remarks – the standard of the suitably mature personality. The success of the lengthy educational-therapeutic work that helps the unfolding of talent and integration, is made possible by the adults' congruent attitude with which they endeavour to realize their rational aims in steps taken day by day in helping development.

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